Improving People's Lives

Transport & Development Supplementary Planning Document

Consultation Draft



Prepared for:

Bath and North East Somerset Council

Prepared by:

AECOM Limited

3rd Floor, Portwall Place

Portwall Lane

Bristol BS1 6NA

United Kingdom

T: +44 117 901 7000

aecom.com

© 2021 AECOM Limited. All Rights Reserved.

This document has been prepared by AECOM Limited ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Contents

Acr	onyms	1
1.	Introduction	3
1.1	General	3
1.2	Climate and Ecological Emergencies	3
1.3	Overview of the District	4
1.4	Document Structure	6
2.	Policy and Guidance Context	8
2.1	National Planning Policy Framework	8
2.2	Bath & North East Somerset Local Development Plan	8
2.3	West of England Joint Local Transport Plan (2020 – 2036)	9
3.	Walking & Cycling	11
3.1	Introduction	11
3.2	Policy Review	12
3.3	Walking & Cycling in B&NES	12
3.4	Issues and Opportunities	15
3.5	Benefits of Walking & Cycling	16
3.6	Walking and Cycling Vision, Objectives and Outcomes	18
3.7	Design Principles and Considerations	20
3.8	Pedestrian Infrastructure	24
3.9	Cycling Infrastructure	28
3.10	Natural and Built Environment	34
3.11	Developer Requirements	37
4.	Parking Standards	42
4.1	Introduction	42
4.2	Local Evidence & Context	43
4.3	Vision and Objectives of Parking Standards	50
4.4	Approach to Parking Standards	51
4.5	Parking Standards Zones	51
4.6	Origin Vehicle Parking Standards	54
4.7	Destination Vehicle Parking Standards	55
4.8	Cycle Parking Standards	56
4.9	Other Parking Standards	57
4.10	Parking Standards by Land Use	58
4.11	Accessibility Assessment	79
4.12	Other Parking Considerations	81
4.13	Parking Design Requirements	84
4.14		85
4.15		93
4.16	Additional Parking Design Requirements	96

5.	Ultra-Low Emission Vehicles	99
5.1	Introduction	99
5.2	ULEV Objectives	100
5.3	Balancing ULEV Opportunities and Challenges	100
5.4	Application of this Guidance	101
5.5	Context	101
5.6	ULEV Context	103
5.7	ULEV Guiding Principles	107
5.8	ULEV Charging Design Principles	107
5.9	ULEV Parking Standards	108
6.	Travel Plan Guidance	112
6.1	Introduction	112
6.2	What is a Travel Plan?	112
6.3	Why Travel Plans?	112
6.4	What are the different Travel Plans?	113
6.5	Developing a Travel Plan	114
6.6	Do I Need a Travel Plan?	115
6.7	What Do I Need to Include?	116
6.8	Travel Plan Delivery Options	117
6.9	Costs and Fees	118
6.10	Approval, Securing, Monitoring and Review	119
6.11	How Travel Plans are Secured	121
6.12	Monitoring and Review Activities	121
6.13	Remedial Actions and Enforcement	122
6.14	Contacts and Further Information	123
Glo	ssary	124
Bib	liography	128

Appendices

Appendix A	Walking and Cycling - Additional Information
Appendix B	Walking and Cycling - Developer Checklist
Appendix C	West of England Local Cycling and Walking Infrastructure Plan (LCWIP) Extract
Appendix D	Parking Standards Zones
Appendix E	Accessibility Assessment
Appendix F	Travel Plan – Additional Information

Tables

Table 3.1	Walking and Cycling - Issues and Opportunities	15
Table 3.2	Walking and Cycling Design Requirement Categories	22
Table 3.3	Walking Design Principles	27
Table 3.4	Cycling Design Principles	32
Table 3.5	Active Travel Checklist	39
Table 4.6	Summary of JLTP Improvements by Mode	44
Table 4.7	Method of Travel to Work per Ward Workplace and Mode of Travel (2011 Census Data)	47
Table 4.8	Operational Vehicle Parking Bay Dimensions	97
Table 5.1	ULEV Charging Standards for Residential Development	109
Table 5.2	ULEV Charging Standards for Non-Residential Development	110
Table 6.1	Indicative thresholds for Travel Plans and Travel Plan Statements by Land Use Class	115
Table 6.2	Travel Plan Fees and Example	118

Figures

Figure 1.1	B&NES District Boundary	4
Figure 1.2	Summary of B&NES Spatial Context	5
Figure 3.1	Benefits of Walking and Cycling	16
Figure 4.1	Extent of Bath Clean Air Zone	45
Figure 4.2	Car Ownership per Household, by Ward (2011 Census Data)	46
Figure 4.3	Parking Standards Objectives	50
Figure 4.4	Parking Standards Zones	52
Figure 4.5	Accessibility Assessment Process	79
Figure 4.6	Bath Resident Parking Zones	83
Figure 4.7	Perpendicular Parking Bays	86
Figure 4.8	Parallel Parking Bays	86
Figure 4.9	Angled Parking Bays – 60 degrees	88
Figure 4.10	Angled Parking Bays – 45 degrees	88
Figure 4.11	Single Disabled Bay	91
Figure 4.12	Multiple Disabled Bays	91
Figure 4.13	Single Space for People with Young Children	92
Figure 4.14	Multiple Disabled Bays	92
Figure 4.15	Common range of Cycles	93
Figure 4.16	Cycle Parking Layout (Sheffield Style Stands) and Dimensions	94
Figure 4.17	Cycle Parking Layout (Sheffield Style Stands) Plan View	94
Figure 4.18	Two-Tier Cycle Rack	95
Figure 5.1	ULEV Policy and Guidance Framework	99
Figure 5.2	ULEV Guidance Context	102
Figure 5.3	ULEV Promotion Framework	103
Figure 6.1	Travel Plan Development Overview	114
Figure 6.2	Process for Travel Plan Approval, Securing, Monitoring and Review	119

Acronyms

Acronym	Description
AONB	Areas of Outstanding Natural Beauty
AQMA	Air Quality Management Area
B&NES	Bath and North East Somerset (Council)
CAZ	Clean Air Zone
CIHT	Chartered Institute of Highways and Transportation
CO	Carbon Monoxide
CO2	Carbon dioxide
CPZ	Controlled Parking Zone
DfT	Department for Transport
DNO	(Electricity) Distribution Network Operator
EV	Electric Vehicle
GFA	Gross Floor Area
GHG	Greenhouse Gas
GI	Green Infrastructure
НМО	Houses in Multiple Occupation
ICE	Internal Combustion Engine (Vehicle)
JLTP	Joint Local Transport Plan
LCWIP	Local Cycling and Walking Infrastructure Plan
LHA	Local Highway Authority
LPPU	Local Plan Partial Update
LTN	Local Transport Note
NO2	Nitrogen dioxide
NOx	Nitrogen oxides
NPPF	National Planning Policy Framework
OZEV	Office of Zero Emission Vehicles
PBSA	Purpose Built Student Accommodation
PTW	Powered Two-Wheel
RPZ	Resident Parking Zones
SEN	Special Educational Needs
SPA	Swept Path Analysis
SPD	Supplementary Planning Document
TA	Transport Assessment
TfL	Transport for London
TRO	Traffic Regulation Order
TS	Transport Statement
ULEV	Ultra Low Emission Vehicle
WECA	West of England Combined Authority

Introduction



1. Introduction

1.1 General

- 1.1.1 This Supplementary Planning Document (SPD) defines and outlines Bath & North East Somerset (B&NES) Council's approach and expectations for developments in relation Walking and Cycling, Parking Standards, Ultra-Low Emission Vehicles (ULEV) and Travel Plans.
- 1.1.2 SPDs should build upon policies in an adopted Local Plan and provide more detailed guidance and advice for developers on application of policies. This SPD supports the Local Plan Partial Update (LPPU) process and forthcoming updates to the adopted Local Plan. This SPD is a material consideration in the determination of planning applications.
- 1.1.3 This SPD should be used by developers and their consultants from the earliest stages of the planning process for new development. "Development" in this instance refers to any scheme that requires planning permission be that a new development, a redevelopment of an existing building or a change of use.
- 1.1.4 This document will be used by B&NES Council to assess development plans, proposals and requirements, where planning permission is sought. Residents and other interested parties are advised to refer to this document to understand the Council's expectations for transport and development within the District.



1.2 Climate and Ecological Emergencies

- 1.2.1 B&NES Council declared a Climate Emergency in March 2019 in recognition that 'business as usual' is not an option in relation to the impacts of climate change and that the Council and all its partners need to review all existing strategies and plans to re-align to the Climate Emergency.
- 1.2.2 B&NES Council also declared an Ecological Emergency in July 2019, in response to the escalating threat to wildlife and ecosystems. The declaration recognises the essential role nature plays in society and the economy and provides a statement of intent to protect wildlife and habitats, enabling residents to benefit from a green, nature rich environment.
- 1.2.3 B&NES Council's Corporate Strategy includes the core policy to tackle the Climate and Ecological Emergencies and this shapes all decisions made by the Council. The Climate and Ecological Emergencies are a major influence on the vision, objectives, standards, and guidance contained in this Transport & Development SPD.
- 1.2.4 The Climate and Ecological Emergencies commit the Council to providing the leadership to enable B&NES to achieve carbon neutrality by 2030. The Council recognises the scale and speed of ambition needed to achieve this target and has defined three immediate priorities for action for the B&NES area including "a major shift to mass transport, walking and cycling to reduce transport emissions." We are targeting a 25% reduction in vehicle mileage per person and a shift in the types of vehicles in B&NES to comprise 76% ULEV and 14% hybrid vehicles. Only 10% of vehicles can be powered by petrol and diesel, i.e. Internal Combustion Engine (ICE). This SPD has a key role is supporting this agenda.

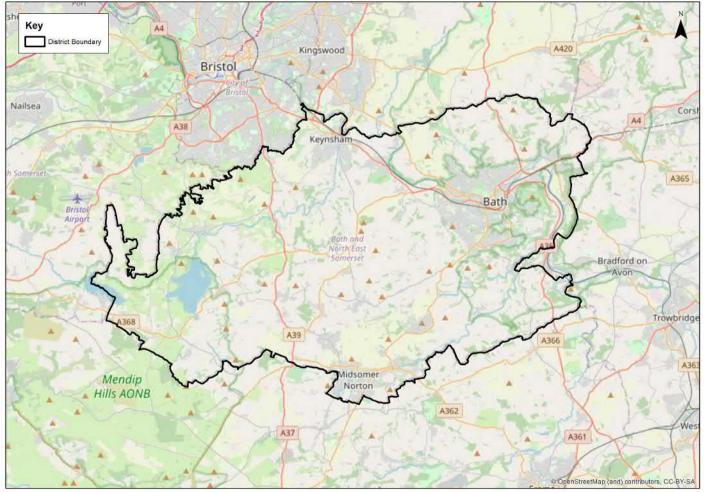


Figure 1.1 B&NES District Boundary

1.3 Overview of the District

- 1.3.1 B&NES is a richly varied District in the south west of England stretching from the edge of Bristol, south into the Mendip Hills and east to the southern Cotswold Hills and Wiltshire border as shown in Figure 1.1. It covers a total area of 570 km2 and is home to about 178,000 people.
- 1.3.2 The District encompasses a diverse range of places, with their own history, identity and communities. The City of Bath is the main urban centre complemented by a range of towns and villages. B&NES comprises a series of outstanding historical, cultural and environmental assets, which draw significant tourism to the District, with a tradition of innovation and enterprise.
- 1.3.3 Across B&NES, there are a number of designated heritage assets including the City of Bath World Heritage Site; over 6,000 listed buildings; 34 conservation areas, 74 Scheduled Ancient Monuments; the registered Lansdown Historic Battlefield Site, 16 registered Historic Parks and Gardens, and 71 Parks and Gardens

designated locally by the Avon Gardens Trust. Along with this historical context, B&NES has a distinct character in terms of natural landscape which is cherished by residents and visitors. This includes the designation of the Cotswold and Mendip Hills as Areas of Outstanding Natural Beauty (AONB) which are important natural landscapes in and surrounding B&NES. Rural areas across the District also have a thriving economy through agriculture, as well as a variety of smaller businesses including the self-employed.

1.3.4 The District forms part of the West of England sub-region which has a population of just over 1.1 million. With a working population of 510,000, the West of England has the second highest economic productivity outside of London. It enjoys a strategic location, reasonably well-served by the M4 and M5 motorways and rail links to London and the rest of the country. Highlights of four key areas are shown in Figure 1.2.

Bath

- Population of around 90,000, of which around 20% are students.
- Well-known as an international visitor destination, thanks to its cultural and built heritage, thermal springs and landscape – encapsulated in its inscription as a World Heritage site.
- Key economic centre in the West of England and is also one of the most important places of learning in the South West.
- The city serves as a regional shopping centre, characterised by independent and boutique shops
- Excellent access to public transport.

Keynsham

- Despite its proximity to Bristol and Bath, Keynsham has retained its own identity, surrounded by countryside.
- Population of around 15,500 people with a high proportion of adults aged 65 and over.
- The town's dominant employer is the public sector. The town centre is characterised by local independent retailers, some large nationals, and charity shops.
- Keynsham is relatively well served by bus routes, has a railway station and much of the town is walkable. It is also

likely to see significant public transport improvements in future.

The Somer Valley

- Covers the urban areas of Midsomer Norton, Westfield and Radstock, together with a rural hinterland containing the principal villages of Peasedown St John and Paulton.
- Home to around 25% of the population of B&NES.
- Midsomer Norton, Westfield and Radstock together make up the second largest urban area in the District, with a combined population of about 21,000.
- The rural towns (including Midsomer Norton, Radstock, Westfield, Whitchurch Village and Peasedown Saint John) have higher levels of car ownership than Bath and Keynsham, but lower than the remainder of the District. The Somer Valley was formerly part of the North Somerset coalfield and retains a rich industrial heritage, with an engineering skills base and has been an important centre for the printing and packaging industry.
- A number of recent factory closures have increased the already high level of outcommuting.

🗻 🖊 🏅 Rural Areas

- Over 90% of the District's land area is rural, with 47 rural parishes.
- Almost a third of the District lies within the Cotswolds and Mendip Hills AONBs.
- Smaller settlements are located in the Chew Valley to the west of the District. The Chew Valley lakes are popular leisure destinations, including for walking and cycling.

1.4 Document Structure

- 1.4.1 The structure and content of the remainder of this Transport & Development SPD is as follows:
- Section 1: Introduction this section.
- Section 2: Policy and Guidance Context provides a high level summary of the key planning policies relevant to this SPD at a national, regional and local level;
- Section 3: Walking & Cycling provides guidance on the provision of walking and cycling infrastructure for new developments, setting out B&NES Council's expectations of developers and establishes "what good looks like" for infrastructure within the District;
- Section 4: Parking Standards details parking standards for new development in B&NES for vehicles, cycles and other modes of transport;
- Section 5: Ultra-Low Emission Vehicles provides guidance for Ultra-Low Emission Vehicles (ULEV) provision at new developments in B&NES, including parking standards and technical requirements; and
- Section 6: Travel Plan Guidance provides guidance in relation to the production and successful implementation of Travel Plans for new developments in B&NES.



Policy & Guidance Context



2. Policy and Guidance Context

2.1 National Planning Policy Framework

- 2.1.1 The National Planning Policy Framework (NPPF) sets out the central government's planning policies for England and how these are expected to be applied at a local level. It provides a framework within which locally prepared plans for housing and other development are produced.
- 2.1.2 Section 9 of the NPPF relates to 'promoting sustainable transport' and states that "transport issues should be considered from the earliest stages of plan-making and development proposals, so that:
- The potential impacts of development on transport networks can be addressed;
- Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised
 for example in relation to the scale, location or density of development that can be accommodated;
- Opportunities to promote walking, cycling and public transport use are identified and pursued;
- The environmental impacts of traffic and transport infrastructure can be identified, assessed and considered – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
- Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places."
- 2.1.3 In terms of transport, planning policies should "actively manage patterns of growth in support of these objectives". This includes making the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable. It also states that "the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different

- communities and opportunities to maximise sustainable transport will vary from urban to rural areas."
- 2.1.4 In relation to the setting of parking standards for residential and non-residential development, the NPPF requires local planning policies to consider, in addition to local accessibility, types of development and vehicle ownership levels, "the need to ensure an adequate provision of spaces for charging plugin and other ultra-low emission vehicles".
- 2.1.5 The NPPF states that "maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport. In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists".
- 2.1.6 The integral role of Travel Plans within the development management progress is identified in Paragraph 111, which states that "all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."

2.2 Bath & North East Somerset Local Development Plan

2.2.1 The Local Development Plan for Bath & North East Somerset (B&NES) comprises the Core Strategy and Local Plan Partial Update (LPPU). The LPPU updates and replaces the Placemaking Plan, which was adopted in 2017. The Core Strategy sets out the strategic objectives of the Local Development Plan, including Objective 7 to "deliver well connected places accessible by sustainable means of transport". This objective will be delivered by:

- "Locating and designing new development in a way that reduces the need and desire to travel by car and encourages the use of public transport, walking and cycling; and
- Ensuring that development is supported by high quality transport infrastructure which helps to increase the attractiveness of public transport, walking and cycling".
- 2.2.2 LPPU Policy ST7: Transport
 Requirements for Managing Development
 sets out the requirements for all parking at
 new developments. The policy states that "an
 appropriate level of on-site servicing and vehicle
 parking and cycle parking should be provided
 in accordance with the parking standards" as
 outlined in this SPD. Parking standards have
 previously been outlined within Schedule 2 of the
 Placemaking Plan, but are now available in this
 separate SPD.
- 2.2.3 The LPPU also sets out the wider policy framework for considering the requirements and implications of development for the highway, transport systems and their users. There is an emphasis for development to offer genuine travel choice through opportunities to travel sustainably and a requirement for transport improvements and / or mitigation to maximise sustainable travel opportunities.
- 2.2.4 Other policies relevant to this Transport& Development Supplementary PlanningDocument (SPD) include:
- Policy D4: Streets and Spaces sets out that the impact of parking provision on connectivity needs to be resolved to avoid poor quality routes and poorly defined streets. Parking arrangements should be integrated into the street scene and large areas of surface parking should be avoided. Car parking and highways design should not dominate the design of development or the public realm.
- Policy ST1: Promoting Sustainable Travel
 supports development which reduces dependency on the private car and promotes the use of car clubs and Electric Vehicles (EVs) and supports and promotes measures which reduce the levels of traffic pollution in the interests of improving the health and quality of life.
- Policy ST3: Transport Infrastructure ensures that any transport infrastructure provided minimises impact on heritage, environment

- and the character of an area, and meets the needs of pedestrians (including disabled persons), cyclists and horse-riders.
- Policy ST6: Interchange emphasises the development of multi-modal interchanges with a requirement to demonstrate that the most suitable and sustainable sites are used for all modes of transport.

2.3 West of England Joint Local Transport Plan (2020 – 2036)

- 2.3.1 The West of England Joint Local Transport Plan (JLTP4) has been produced by the 'West of England Joint Committee' made up of B&NES, Bristol City Council and South Gloucestershire Council (the West of England Combined Authority (WECA) areas) and North Somerset Council to set out the vision for travel and transport across the West of England between 2020 and 2036. The JLTP4 was published in March 2020.
- 2.3.2 The vision of the JLTP4 is: "connecting people and places for a vibrant, inclusive and carbon neutral West of England". Five objectives are outlined to achieve this vision:
- "Take action against climate change and address poor air quality;
- Support sustainable and inclusive economic growth;
- Enable equality and improve accessibility;
- Contribute to better health, wellbeing, safety and security; and
- Create better places".
- 2.3.3 The JLTP4 outlines the issues and opportunities for connectivity across four spatial levels: 'outside the West of England', within the West of England', 'local' and 'neighbourhood'. The JLTP4 also outlines some major transport schemes. Major schemes relevant to the B&NES area include a Mass Transit corridor between Bristol City Centre and Bath, light rail in Bath City Centre and along key corridors, MetroWest Phase 1, sustainable travel improvements for Bath and public realm improvements in towns and villages including Keynsham and Midsomer Norton. Overall, there are a significant range of planned transport schemes which when delivered will provide greater opportunity for sustainable transport within, and, connecting to B&NES.

Walking & Cycling



3. Walking & Cycling

3.1 Introduction

- 3.1.1 This section of the Transport & Development Supplementary Planning Document (SPD) is intended as a tool to ensure the delivery of high-quality walking and cycling infrastructure through the planning process. It sets out Bath & North East Somerset (B&NES) Council's expectations of developers and establishes "what good looks like" for infrastructure within the District. Importantly, it provides guidance for developing proposals, and a proportionate process to ensure that this is suitable for all types of development.
- 3.1.2 As an overview, the purpose of this section of the SPD is to:
- Provide clear expectations & clarity for developers;
- Emphasise the importance of promoting active travel;
- Establish "what good looks like" in the context of B&NES;
- Signpost to detailed design guidance; and
- Provide proportionate assessment criteria for evaluating proposals.
- 3.1.3 This section should not be seen as:
- Specific detailed design guidance for walking and cycling;
- An Active Travel Strategy for B&NES; or
- A Local Cycling and Walking Infrastructure Plan (LCWIP).
- 3.1.4 This section considers micro-mobility and how this should also be seen within the context of walking and cycling. Within Local Transport Note (LTN) 1/20 'Cycle Infrastructure Design' it is stated that the terms "pedestrian" and "walking" should be inclusive of people using "mobility aids such as wheelchairs and mobility scooters designed for use on the footway, and people with physical, sensory or cognitive impairments who are travelling on foot". Cycling infrastructure also needs to support the use of a range of micro-mobility options, including e-bikes, e-scooters, adaptive cycles, cargo bikes and bikes with trailers.

3.1.5 This section includes case studies that demonstrate some principles for walking and cycling infrastructure to help build a picture of what good walking and cycling infrastructure looks like. The case studies draw on examples from within B&NES and further afield. It should be noted that case study examples may not be fully compliant with current guidance (for example LTN 1/20 which was only recently published). There may therefore be elements within case studies that are not now acceptable. Inclusion within a case study does not imply automatic acceptance of design parameters which may otherwise not be acceptable.

Climate and Ecological Emergencies

- 3.1.6 Every decision to complete a journey by walking or cycling is crucial to combatting the Climate Emergency, but it is not enough on its own. B&NES is committed to ensuring that the opportunity is taken to provide the necessary walking and cycling infrastructure to enable the mass shift in travel behaviour required to minimise climate change. Walking and cycling policies, design, implementation and uptake are important levers to influence and reduce the number of car journeys undertaken on the roads, in a bid to reach carbon neutrality by 2030.
- 3.1.7 The provision of walking and cycling infrastructure and the implementation of measures to combat the Ecological Emergency are not mutually exclusive. There is the opportunity to provide co-benefits between local wildlife and ecology and active travel provision through design, for example through the provision of 'Greenways' which can serve as active travel corridors and benefit the natural environment and the inclusion of Green Infrastructure (GI) in designs for walking and cycling. The betterment of our natural environment also enhances the quality of day-to-day walking and cycling journeys.

3.2 Policy Review

- 3.2.1 National, regional and local walking and cycling policies and guidance have been reviewed to inform this walking and cycling guidance. General policies have been reviewed in Section 2 and key guidance documents are summarised as follows:
- LTN 1/20: Cycle Infrastructure Design
 (2020) contains guidance for Local Authorities,
 developers and highway engineers for
 designing high-quality cycle infrastructure.
 LTN 1/20 is promoted as a basis for Local
 Authorities to set own standards and therefore
 is a key consideration for this SPD.
- The statutory design guidance for the Active Travel (Wales) Act 2013 (2014) provides guidance the planning, design, construction and maintenance of active travel networks and infrastructure drawing together information and Best Practice from a wide range of sources. Whilst the Act itself is applicable only in Wales, the associated statutory guidance is suitable for the development of active travel infrastructure in B&NES.
- Pedestrian Comfort Guidance for London (Transport for London (TfL), 2010) provides guidance for creating excellent pedestrian environments. Although developed by TfL for London's streets, the guidance is well suited to providing guidelines for the development of walking infrastructure within B&NES.
- The 'Healthy Streets Approach' has been developed by TfL as a system of policies and which detail how TfL will put people and their health at the centre of their decision making, helping everyone to use cars less and to walk, cycle and use public transport more. Although the Healthy Streets approach has been developed for London, the principles and guidance are well suited to providing guidance for B&NES. Healthy Streets uses evidencebased indicators1 of what makes streets attractive places. Working towards these will help to create a healthier city, in which all people are included and can live well, and where inequalities are reduced. The Healthy Streets toolkit includes resources to help put the Healthy Streets approach into practice.

- 3.2.2 Further detail in relation to the policy and guidance review in relation to the walking and cycling guidance is provided at Appendix A. The policy and guidance review has revealed key themes which have been considered throughout the production of this guidance:
- Hierarchy walking and cycling should be promoted and provided as genuine travel choices for all. They are the most sustainable modes of transport and should be prioritised above all other modes;
- Design walking and cycling infrastructure should be high-quality, accessible to all from "ages 8 to 80"² and for disabled people, safe and perceived to be safe, comfortable and attractive. Networks should be well-connected to local facilities and green spaces and coherent. Routes should be direct and legible, including good signage and wayfinding;
- Benefits the benefits of walking and cycling are numerous and include physical health, mental health, air quality, and social benefits.
 Designing for walking and cycling has the propensity to enhance the built and natural environment. Care should be taken to ensure that the benefits of walking and cycling are made available to all; and
- Development should be located where there is the greatest propensity for the uptake of walking and cycling and deliver walking and cycling infrastructure to support this. There should be a realistic opportunity for users to access new developments by sustainable transport modes.

3.3 Walking & Cycling in B&NES

- 3.3.1 This section of the SPD provides an overview of the walking and cycling context for the B&NES District. Further information and detail is available at Appendix A.
- 3.3.2 Walking and cycling infrastructure is varied across the B&NES District. In urban areas, there tends to be well-established networks for active travel, for example through the provision of footways, shared walking / cycling routes and occasional cycleways. The main considerations for these networks include the provision of continuous and coherent routes,

¹ Transport for London (2017)

² Department of Transport (2020) Cycle Infrastructure Design - Local Transport Note 1/20

and ongoing challenges to maintenance. Routes are frequently adjacent to carriageways making them unattractive for pedestrians and cyclists. Potential improvements to walking and cycling infrastructure in the key settlement and urban areas of B&NES are outlined in the West of England Joint Local Transport Plan (JLTP4) and LCWIP, although this is not an exhaustive list.

- 3.3.3 In rural areas, provision is less established, less utilised and often limited to within rural settlement boundaries, although some strategic cycling routes are available. Walking and cycling is mostly associated with leisure uses and infrastructure is not necessarily designed to be accessible for all users. There are a number of flagship strategic walking and cycling routes within the District, including The River Avon / Avon and Kennet Canal shared-use towpath through Bath City Centre, the Bristol to Bath Cycle Path, and the Two Tunnels Circuit.
- 3.3.4 Data from the 2020 TravelWest Travel to Work Survey³ indicates that there is reasonable uptake of active travel as part of regular journeys to / from work within the District. A total of 7% of the survey respondents indicated that they travel to work by bicycle, which is higher than the national average uptake, and a total of 11% of respondents indicated that they travel to work on foot as the main part of their journey. This means that nearly one in five of all journeys to work were reported to be via active travel. This is a reasonable starting point but with significant scope to increase. 53% of respondents reported that their main mode of travel to / from work was by car.

- 3.3.5 Data on pupil mode share indicates that in urban areas around 60% 75% of journeys to school are undertaken by active travel, reducing to 50% 60% for rural areas⁴.
- 3.3.6 The following is a selection of barriers to achieving a mode shift to walking and cycling in B&NES, which this section of SPD seeks to address:
- Targets are not strong enough to bring about meaningful mode shift change;
- Level and quality of dedicated infrastructure;
- Lack of suitable / coherent signage and wayfinding;
- Maintenance of paths (e.g. some are often muddy / flooded) and presence of overgrown vegetation;
- Accessibility for all (e.g. difficult for disabled persons);
- Lighting of routes impacts on perceived and actual safety;
- Littering and other forms of anti-social behaviour;
- Availability of cycle parking;
- Ability to ride bicycles (e.g. lack of suitable training);
- Lack of awareness to the physical and mental health benefits of walking and cycling;
- Adoption into established patterns / routines;
 and
- Lack of self-esteem (e.g. relating to personal safety) and personal security concerns.

Improvements to Unlock Mode Shift Location: Two Tunnels Greenway, Bath and North East Somerset

Delivered by the Connect2 programme, the re-opening the Coombe Down and Devonshire Railway tunnels, walking and cycling route and the accompanying links into the local network has provided new safe access into Bath. Over 135,000 cycling trips are made on the route annually, more than a fourfold increase on the number of trips made on the existing parts of the route prior to the tunnels being open – with modelling estimating over 7,400 car trips being taken off the road network as a result. Despite the high cost of the project, health benefits of over £8.5 million and amenity benefits of over £4 million contribute to a benefit cost ratio of 3.4 to 1.

³ TravelWest 2020

⁴ Modeshift STARS (data between 2015 and 2021)

Cycling Culture

Location: Mini-Hollands, London

The Mini-Holland scheme has been implemented in outer London Boroughs where residents are more car-dependent than inner London. It aims to make these boroughs cycle-friendly, where more than 50% of journeys are made by cycle. Each of the 3 participating Boroughs were awarded £30 million funding to transform the environment for cycling, which was supplemented by the Boroughs' own funding in some cases.

The infrastructure changes implemented include; segregated cycle lanes; measures to calm motor traffic; redesigned town centres; cycle hubs and a range of behaviour change measures including community bike rides. The schemes also include measures to improve the walking environment such as new pedestrian crossings at key locations, and the creation of new public spaces with seating, trees and flowerbeds.

A study investigating the early impact of the programme discovered that people in affected areas were 24% more likely to have cycled, and walked or cycled for 41 minutes per week more than those where such improvements have not yet been made.

Mini-Holland status was also associated with a more positive perception of the local cycling environment and the community.

With regard to addressing inequalities, the Waltham Forest mini-Holland programme has helped to deliver a number of benefits to the local community, such as launching an 'All Abilities Cycle Club', where everyone regardless of ability can take part in rides using relaxed tricycles, recumbents, wheelchair bikes and hand-cycles.

Cycling Culture

Location: Building Cycle Infrastructure, Birmingham

The Cycling Cities Ambition fund is part of the Cycling and Walking Investment Strategy. This is the delivery strategy for the government's commitment to switching more journeys to active travel to improve health, quality of life, the environment, and local economy.

Birmingham resurfaced 8 canal towpath cycle routes, created or improved over 15 miles of cycle routes across green space, signed 11 routes along quieter roads, implemented 20 mph zones across 16 square miles of roads, and distributed 7,000 bikes in disadvantaged communities.

Recently completed schemes include 4 miles of new segregated cycle track along 2 'A' road corridors, with new cycle parking due to be installed along these routes shortly to complement parking facilities already installed in the city centre.

There has been a comprehensive upgrade of 32 miles of canal towpaths; information totems were installed on a one mile route in the city centre, and access ramps were added at 8 locations.

3.4 Issues and Opportunities

3.4.1 There are a range of issues and opportunities presented to the provision of walking and cycling infrastructure across B&NES. These are presented in Table 3.1.

Table 3.1 Walking and Cycling - Issues and Opportunities

Topic	Issue	Opportunity
Air Quality	Air pollution is one of the largest environmental risks to public health in the UK, with 28,000 to 36,000 deaths each year attributed to human-made air pollution ⁵ . Poor air quality can lead to respiratory and cardio-vascular conditions, cause some kinds of cancers and exacerbate the effects of pre-existing health conditions ⁶⁷ . Traffic emissions are a major source of air pollution, most notably of Nitrogen Oxide (NO2). Several areas within B&NES currently exceed the legal limits for NO2 pollution and as such a Clean Air Zone' (CAZ) has been introduced for Bath City Centre and Air Quality Management Areas (AQMA) are in effect across the district.	Investment in attractive and inclusive walking and cycling infrastructure is an opportunity to increase the uptake in active travel across the district and reduce car usage for shorter journeys. This will help to improve air quality in B&NES and reduce the effects of poor air quality on public health. Special consideration should be given to the provision of walking and cycling infrastructure within the CAZ and AQMAs.
Topography	The B&NES District is characterised by dramatic changes in elevation. This contributes to the attractiveness of the built and natural environment in B&NES however this can present a significant barrier to the uptake of walking and cycling.	Walking and cycle infrastructure should avoid hills and steep gradients where possible, but that this should be balanced against the need to provide direct routes between destinations. It is particularly important that appropriate cycling infrastructure is provided to protect cyclists on uphill sections. The ongoing wider adoption of power-assisted bicycles (e-bikes) greatly increases the potential viability of cycling in areas with steep changes in elevation. E-bikes can also support cycling for longer distance trips than might typically be achievable using a conventional bicycle. Cycling infrastructure should be provided to accommodate e-bikes and other e-assisted micro-mobility.
Health & Physical Activity	In B&NES, there are between 30,000 and 35,000 adults (16+) that are estimated to be inactive, doing less than 30 minutes of physical activity a week ⁸ and over half of the population of B&NES is overweight or obese ⁹ . One in four people will experience a mental health problem each year and mental health is becoming more recognised as a serious threat to public health in the UK.	Investment in walking and cycling infrastructure is investing in health and wellbeing. Walking and cycling provide physical and mental wellbeing benefits which will improve public health (further details of the health and wellbeing benefits of active travel are outlined in Section 3.5 of this SPD).
Inequality in Active Travel	There are currently inequalities in the access to and uptake of active travel across B&NES. Existing issues with active travel networks can present real issues for disabled persons (for example lack of suitable crossings).	Walking and cycling infrastructure should be and can be inclusive and accessible to all members of society, not only because everyone should have access to the benefits of active travel, but also because more people need to complete more journeys using sustainable, low carbon transport to meet B&NES Climate Emergency objectives. This will mean that new infrastructure should be designed to support those who currently have limited or unequal access.
Heritage Assets & Placemaking	B&NES is characterised by excellent, world renowned heritage and cultural assets. As set out in local policy and public realm guidance, it is important that these assets are protected. Previously, the simultaneous provision of active travel infrastructure and conservation of heritage and cultural assets has been challenging and a barrier to the delivery of active travel in B&NES.	Walking and cycling infrastructure design is an opportunity to provide a balance between the conservation of placemaking and heritage assets in the city of Bath and the surrounding areas, in consultation with the relevant stakeholder groups and B&NES Council. The provision of walking and cycling infrastructure should be seen as an opportunity to reduce traffic in key heritage areas, contributory to the creation of active' and 'living' places which in use by the public, and a way to improve access to placemaking and heritage assets for all residents and visitors to B&NES.

⁵ Public Health England (2019)

⁶ Public Health England (2020)

⁷ Public Health England (2019)

⁸ Sport England, Active Lives Survey

⁹ Public Health England, Public Health Outcomes Framework

3.5 Benefits of Walking & Cycling

- 3.5.1 Walking, cycling and other forms of active travel are the most sustainable, healthy, and inexpensive methods of transport. For most people, walking and cycling are the easiest and most appropriate forms of physical activity that can be included into everyday life which can also be used to complete short local journeys, journeys to work or for leisure.
- 3.5.2 Figure 3.1 provides a summary of the wider benefits available through the promotion and provision of walking and cycling infrastructure. Additional information and context in relation to these benefits is available at Appendix A.

Figure 3.1 Benefits of Walking and Cycling

Health Benefits

Walking and cycling:

- Are easier forms of physical activity to include in everyday life as part of short regular journeys;
- Can reduce instances and severity of diseases and illnesses;
- Helps to maintain a healthy body weight;
- Helps to build muscle;
- Helps to manage mental health issues such as depression, low mood and anxiety;
 and
- Helps to build up the immune system.

Environmental Benefits

Environmental Switching to walking and cycling and reducing vehicle use:



- Reduces air pollution and the associated negative impacts on the environment and public health;
- Reduces noise pollution and the associated impacts on public health and wildlife;
 and
- Results in reduced levels of vehicle traffic which in turn allows for allocation for green space / infrastructure promoting biodiversity.

Economic Benefits

Walking and cycling:

 Can improve the retail environment for town centres and high streets through increased retail footfall and spending;



- Are typically faster and cheaper modes of transport than public transport in urban areas:
- To work results in fewer sick days and leads to a more productive and healthier workforce; and
- Investment gives a high return compared to other transport schemes with fewer negative impacts (e.g. TfL research shows that walking / cycling schemes deliver an average Benefit Cost ratio of 13:1).

Social Benefits

Walking and cycling:

- Are highly social forms of transport which can be undertaken as a group or individually;
- Improves sense of place and community;



- Provides access to green spaces and nature to those who otherwise would not have access:
- Improvements to walking and cycling infrastructure brings social value to local and town centres;
- Creates 'active environments' that result in safe, accessible and sustainable movement and travel for all social groups helping to improve health outcomes and reduce health inequalities; and
- Improves feelings of personal security (e.g. busy areas with high pedestrian / cycling numbers can make people feel safer).

Pedestrian Improvements to High Streets Location: Reinvigorate York, York

In 2012 The York Visitor Survey found that, overwhelmingly, the top activity of the seven million visitors to the city each year is to 'stroll around and enjoy the ambience of York', together with 'eating and drinking out'. Less than 2 million of the 7 million visitors reported going into the major attractions. This illustrates the vital importance of the quality of public spaces. The City of York Council put forward the economic case that improving the public realm in the city centre is vital to attract 'entrepreneurs, investors, students and people looking for jobs'.

In September 2012, the Cabinet approved a £3.3 million investment across six city centre locations to 'Reinvigorate York'. The key objectives of the programme were to reinvigorate the city centre economy, increase footfall, improve quality of life for residents, increase the sense of York as a special place and maintain its position as a top tourist attraction. An initial £200,000 was allocated to a package of measures including improvements to paving, lighting, seating, bins and de-cluttering public spaces. The economic benefits of improving the environment for pedestrians, cyclists and public transport and increasing accessibility is a theme throughout. In February 2018, York took further action to increase pedestrian safety by deciding to identify additional locations where vehicle restrictions will take precedence over access requirements due to the potential conflict between pedestrians and vehicles.

This case study demonstrates both the importance of people's perceptions of quality of the public realm and the City of York Council's confidence of the economic benefits of more attractive streets through their willingness to pay for public realm improvements. The decision to invest in the city's public spaces anticipates the value of enhancing the city's image as an international destination and widening its offer: as a place to live and work, as a means of attracting higher value employment and providing a catalyst for private sector investment.



3.6 Walking and Cycling Vision, Objectives and Outcomes

- 3.6.1 The Walking and Cycling Vision has been developed in conjunction with key local and regional policy documents such as the Placemaking Plan and West of England JLTP4. The Vision will serve to underpin the Walking and Cycling Objectives outlined below.
- 3.6.2 The Walking and Cycling Vision is as follows:
- 3.6.3 Alongside the Vision, the Walking and Cycling Objectives set out what the SPD ultimately aims to achieve in relation to walking and cycling provision. Six objectives have been identified based on the aspirations of the Placemaking Plan and other key local policies. For each of the Objectives there are several outcomes that set out what could be achieved for walking and cycling within the District.

Safe, resilient, and universally inclusive walking and cycling infrastructure that enables mass uptake of active travel, has a positive impact on tackling the Climate and Ecological Emergency, supports health and wellbeing, and reflects local needs.

1. Develop a high quality, attractive, safe and integrated network of walking and cycling infrastructure.

- Ensure new cycle and pedestrian paths link with existing and wider networks, integrating communities.
- Ensure safety both in terms of road safety and crash reduction, and personal security, is considered throughout the design process.
- Ensure public realm elements (e.g. benches, bins, public art) and green spaces are incorporated alongside new and upgraded walking routes where possible.
- Deliver secure cycle parking and storage facilities.
- Ensure signage and other wayfinding infrastructure is high quality, fit for purpose and sympathetic to local surroundings.
- Ensure fairer access to road space for all users.
- Safeguard, enhance and extend existing cycle routes & Public Rights of Way.

2. Break down barriers to active travel and establish inclusive walking and cycling provision for all users.

- Remove some of the barriers to walking and cycling, and facilitate access for all. Barriers include personal safety, topography, distance, availability of cycle parking, access for adapted bikes and other traffic.
- Implement wayfinding / signage that helps highlight how easy it is to travel to certain destinations by foot or bike e.g. time to destination to indicate proximity.

Safeguard historic elements whilst ensuring there is no prejudice to providing innovative walking and cycling solutions.					
√	Journey experiences which are enhanced through an integrated and connected transport network.				
√	The impact of the transport network on the built, natural and historic environment is minimised and / or mitigated.				
√	There will need to be joint working with a range of disciplines. This will need to ensure that walking and cycling solutions are delivered and that all issues are considered and proactively addressed in as integrated a way as possible.				
	ort Climate Emergency priorities by enabling low carbon mobility and reducing ful impacts of transport on the natural and built environment.				
√	Support and promote measures which reduce the levels of traffic pollution in the interests of improving health and quality of life.				
√	Incorporate green solutions into design.				
√	Reduce dependency on the private car.				
5. Deliv	er a step change in the number of healthy, low carbon walking and cycling trips.				
√	Provide a well-connected sustainable transport network that offers greater, realistic travel choice and makes walking and cycling and the natural way to travel.				
√	Support a broad range of trips not only journey to work.				
√	Trips into and within B&NES will be seamless, faster, cheaper, cleaner and safer.				
√	Enable residents and visitors to B&NES to improve their health and wellbeing through walking and cycling.				
	te better places by delivering development which prioritises the needs of pedestrians cyclists and enhances the quality of the natural and built environment.				
√	Better health and wellbeing for residents from increased physical activity.				
√	Closer communities supported by quieter, safer streets.				
√	Using natural solutions to minimise impacts of climate change and build in climate resilience.				
√	Better walking and cycling infrastructure, with more people walking or cycling their short journeys.				
√	Fairer access to road space by all users.				
√	Implementation of GI.				

3.7 Design Principles and Considerations

- 3.7.1 This section provides walking and cycling design principles, a high-level design brief for any works associated with the provision of walking and cycling infrastructure within B&NES. It also outlines the conditions which need to be achieved by walking and cycling infrastructure.
- 3.7.2 These principles provide a framework which designers should adhere to when developing walking and cycling infrastructure within B&NES. This will help to ensure the accessibility for street users of all levels of mobility and make sure that solutions respond to the character and features of the region.
- 3.7.3 One of the key policy and guidance themes outlined in Section 3.2 is 'Design' which highlights that walking and cycling infrastructure should be high quality, accessible to all. It also states that infrastructure must be safe and perceived to be safe, comfortable and attractive, with well-connected and coherent networks and good signage.
- 3.7.4 Whilst the design principles contained within this section form the basis for delivering good quality walking and cycling infrastructure, this SPD does not provide specific geometric design standards for designers. For detailed guidance, designers are signposted to the following national and regional design standards, dependent on the type of improvements

being introduced. The points below detail the guidance to be followed based on the design consideration. These documents should be used, ensuring that designs seek to incorporate local context and priorities.

- LTN 1/20 Cycle Infrastructure Design (2020);
- Design Guidance Active Travel Wales Act 2013, (2014);
- Welsh Government Active Travel Guidance (2020) – not yet adopted;
- Pedestrian Comfort Guidance for London (2010);
- Manual for Streets (2007);
- Manual for Streets 2 (2010);
- The Healthy Streets Approach (2017);
- The Health Streets Toolkit;
- Building for a Healthy Life (2020); and
- Active Design (2015)
- 3.7.5 LTN 1/20 must be used when considering cycle infrastructure design. LTN 1/20 provides cutting edge and detailed guidance on designing for cycling. When applying the principles of LTN 1/20 it will be important to take account of the rural nature of some areas within B&NES and the differing speed limits that exist. This will help to ensure that the most appropriate infrastructure is delivered.

Natural Surveillance and Personal Safety Location: Bath River Line, Bath and North East Somerset

The Bath River Line is an exciting GI project designed to rejuvenate the river corridor through Bath, from Newbridge to Batheaston. The project is looking at ways to improve the towpath, parks and open spaces, and public realm directly next to the river, to benefit nature, communities, and our sustainable transport infrastructure.

The existing route has many areas of poor lighting and natural surveillance which has historically been a barrier to widespread use of the paths alongside the river by both walkers and cyclists despite the connections to the city centre and National Cycle Route 4.

The River Line scheme is designed to introduce additional natural surveillance using vegetation / canopy clearance, seating and play areas and also by wider promotion of the route to encourage additional use and increase usage surveillance of the scheme. It is also a good example of integration of active travel routes and GI.

The river corridor is an important wildlife corridor, including for Horseshoe Bats. The need for vegetation clearance to achieve natural surveillance was balanced against the impacts on wildlife and biodiversity. This should be a consideration in decision making in relation to walking and cycling infrastructure.

Application of Outdated Guidance Location: Keynsham, Bath and North East Somerset

Hygge Park is a 250 dwelling residential development located to the east of Keynsham to the south of the A4. The development was allocated in the B&NES Core Strategy (Policy KE3a). The placemaking principles of the allocations included a requirement to "utilise the green corridors through the development to provide new shared pedestrian and cycle routes".

At the time, there was no guidance available for B&NES to steer the walking / cycling infrastructure requirements which were determined on a case by case basis across the district. For Hygge Park, a network of 3.0m wide shared cycle / footpaths was included in the planning submission which was negotiated and agreed with B&NES. These are now being constructed. This was considered to be the most appropriate form of infrastructure for the nature and scale of the development at that time of determining the planning application. These paths are generally adequate for current usage, but not likely to deliver significant mode shift as they do not provide significant space for either mode.

LTN 1/20 provides up to date detailed guidance on what best practice looks like for cycling in various contexts. This guidance sets out that segregated provision would have been preferable to shared facilities in order to deliver ambitious levels of active travel uptake.

This SPD uses the latest technical guidance in LTN 1/20 to help B&NES determine what 'best practice' looks like for walking and cycling infrastructure for determining planning applications.

- 3.7.6 Whilst there is a range of guidance on walking available, there is not a single equivalent document that is to walking as LTN 1/20 is to cycling. The 'Pedestrian Comfort Guidance for London' (TfL, 2010) document represents the closest guidance in terms of its overall coverage of pedestrian infrastructure planning needs. Although designed for London's streets, the guidance is well suited to providing guidelines for the development of walking infrastructure within B&NES.
- 3.7.7 Active Travel Guidance for Wales also represents a good source of information for guiding design principles in B&NES even though the Act itself does not apply. This guidance has been developed based on a wide range of preexisting standards and best practice drawn from throughout the UK and is therefore suitable for application in B&NES, subject to local context.
- 3.7.8 The subsequent sections describe the design principles to be applied in relation to walking, cycling and other design elements.
- 3.7.9 The design of walking and cycling infrastructure within B&NES should take into consideration the fundamental elements outlined within the Walking and Cycling Vision

and Objectives. Subsequently, a number of design requirement categories have been identified, within which key principles have been established that link directly to the Objectives. These design principles are a key mechanism for supporting and delivering the outcomes of the Objectives. The design requirement categories are outlined as follows:

- Accessibility Accessibility with regards to directness, continuity and inclusivity;
- Safety and Security Safety requirements, such as the need for lighting, natural surveillance, well designed routing and personal security;
- Comfort User comfort, such as the provision of seating, adequate route widths, surfacing and quality of environment; and
- Legibility Ability to navigate, such as through legible routes, signage and wayfinding.

3.7.10 Table 3.2 sets out the design principle categories and how they link to the Objectives.

Design Category	Objectives Supported
Accessibility	1. Develop a high quality, attractive and integrated network of walking and cycling infrastructure
	Break down barriers to active travel and establish inclusive walking and cycling provision for all users
	Support Climate Emergency priorities by enabling low carbon mobility and reducing harmful impacts of transport on the natural and built environment
	5. Deliver a step change in the number of healthy, low carbon walking and cycling trips
Safety and	1. Develop a high quality, attractive and integrated network of walking and cycling infrastructure
Security	Break down barriers to active travel and establish inclusive walking and cycling provision for all users
	6. Create better places by delivering development which prioritises the needs of pedestrians and cyclists and enhances the quality of the natural and built environment
Comfort	1. Develop a high quality, attractive and integrated network of walking and cycling infrastructure
	Break down barriers to active travel and establish inclusive walking and cycling provision for all users
	3. Safeguard historic elements whilst ensuring there is no prejudice to providing innovative walking and cycling solutions
	6. Create better places by delivering development which prioritises the needs of pedestrians and cyclists and enhances the quality of the natural and built environment
Legibility	1. Develop a high quality, attractive and integrated network of walking and cycling infrastructure
	Break down barriers to active travel and establish inclusive walking and cycling provision for all users
	6. Create better places by delivering development which prioritises the needs of pedestrians and cyclists and enhances the quality of the natural and built environment

Table 3.2 Walking and Cycling Design Requirement Categories

3.7.11 These principles are established within the planning policy framework. Accessibility is referenced throughout the B&NES Placemaking Plan and forms an integral part of many of the policy aims and objectives. For example, the importance of accessibility in promoting sustainable travel, safeguarding local community facilities and managing requirement for developments is covered in Policy ST1: Promoting Sustainable Travel, Policy H7: Housing Accessibility and Policy ST7: Transport Requirements for Managing Development.

3.7.12 Safety is also highlighted within a number of policies, such as Policy ST7, and is also referenced in relation to the delivery of high quality design, promoting sustainable travel and other recreational development proposals. Security is also key, with relevant references within Policy ST3: Transport Infrastructure and within the transport and movement section in relation to sustainable transport's contribution to security and health. Policy D8: Lighting also states that safety should not be compromised in low lit or dark public areas. The application of 'Crime Prevention Through Environmental Design' design principles should be a key part of the planning and design process.

Lighting and Personal Safety Location: Milsom Street, Bath

Milson Street and the surrounding areas are important retail and leisure locations in Bath City Centre and characterised by the public realm which incorporates pedestrianisation in addition to planting, seating with some traffic movements / parking. The lighting of these streets has previously come via the retail shop windows, which provided an attractive solution for these areas. No formal street lighting is provided in these areas.

During the COVID-19 pandemic, many of the shops were permanently closed to visitors and as such did not continue to provide lighting to the street. This resulted in these areas of the city centre becoming dark and unattractive to pedestrians and cyclists. Whilst this is a temporary situation, it has highlighted the importance of consideration for the resilience of walking / cycling environments for all occasions / seasons.

Improved Road Safety Location: 20mph Speed Limit Pilot Schemes, Wales

Plans for a default 20mph speed limit on Welsh roads are being taken forward with the introduction of eight pilot schemes now confirmed. The areas chosen are intended to be a representative sample of different locations found across Wales, including villages, towns and cities.

The Welsh Government is introducing the new speed limit to improve safety and help make Welsh streets a more welcoming place for cyclists and pedestrians.

Initial findings from a national public attitude survey have found support for the plans. 92% of those who wanted a change to the speed limit on their street suggested a speed limit of 20mph or lower, while 77% said they wanted to see this speed limit applied throughout the area in which they live.

Decreasing speeds reduces accidents and saves lives, and alongside this the quality of life will improve, making room on streets for safer active travel. This helps reduce our environmental impact and has a positive outcome for our physical and mental wellbeing.

- 3.7.13 Road safety is also a fundamental element of walking and cycling design. For example, the 'Safe System' and 'Vision Zero' strategies represent an ambitious safety performance level and current best practice safety culture in road safety. The approach has evolved over many years and derives most notably from the Swedish Vision Zero and Dutch Sustainable Safety strategies and the concepts and good practice in other fields. Safe System embraces well-established safety principles and building on demonstrably effective practice using innovative solutions and new technologies. It is being taken up increasingly in Europe, Australasia and North America at regional, national levels and city levels.
- 3.7.14 Comfort is referred to within Policy D1: General Urban Design Principles, where it states that places should be designed to be safe, comfortable, varied and attractive.

- 3.7.15 The legibility of signage and other wayfinding principles is referenced within Policy D4: Streets and Spaces, which states that signage, lighting and street furniture must not be cluttered and should respond to local context.
- 3.7.16 Other forms of micro-mobility must also be considered in relation to the walking and cycling design categories. In terms of accessibility, ensuring that access can be achieved by various types of users, such as wheelchairs, adaptive cycles, e-bikes, e-scooters, cargo bikes and bikes with trailers will be fundamental to any proposals. For example, removal of barriers to inclusive routes such as topography, non-step access and poor / insufficient tactile paving will be an important factor in ensuring inclusive use. Routes must also be both safe, and feel safe, if they are to be inclusive and support cycling for all. With regard to comfort, paths should be

clear and unobstructed, allowing wheelchair users, mobility scooters and pushchairs to pass each other. In terms of legibility, signage should clearly state the suitability for various forms of micro-mobility.

Wayfinding and Signage

Location: MOD Endsleigh Residential Development, Bath

The former MOD Endsleigh site has been redeveloped for residential purposes, comprising circa 200 units. Planning permission was granted in 2015 and is now constructed.

Pedestrian routes have been created across the site that connect with the network of Public Rights of Way beyond the site boundary. These are overlooked by houses for security. Pedestrian priority streets, emphasised through the public realm strategy provide links to the shop, the bus stop on Granville Road and feature elements such as the retained oak tree.

However, as the masterplan has been built out it has become clear that the site exhibits some issues in terms of signage and wayfinding through the development including to local areas of green space, local facilities and public transport, which is reported by Officers to be acting as a barrier to active travel.

In addition, good practice should be promoted for new design within housing areas, with minimum footway widths of 1.8m, plus clearance from vertical structures. Clearance from the carriageway, unless there is a 20 mph speed limit imposed, should be a minimum of 2m and ideally 2.5m.

3.8 Pedestrian Infrastructure

- 3.8.1 The development of well-defined, safe and coherent pedestrian infrastructure is a key mechanism in supporting the growth of active travel. As previously noted, a number of design requirement categories have been identified which link directly to the Walking and Cycling Objectives and respective outcomes.
- 3.8.2 The development of specific design principles is noted within numerous national and regional guidance documents, focused on the promotion and development of quality pedestrian infrastructure, such as the Design Guidance document associated with the Active Travel Wales Act 2013 (referred to as Active Travel Wales within the document) and the TfL documents.
- 3.8.3 The principal needs of pedestrians are noted within the Active Travel Wales document under the following headings, stating that people wish to use routes that are:

- Coherent;
- Direct;
- Safe;
- Attractive; and
- Comfortable.
- 3.8.4 These principles link closely with the specific design categories identified in Section 3.7. Table 3.3 defines and provides further details of the design principles themselves, and signposts the applicable design guide to be referred to, including a reference within the document itself. Designers may propose designs which reference other UK standards set out in this document and their successors, although this will need to be agreed with B&NES Highways Engineers.
- 3.8.5 As previously outlined, this section of the SPD is not intended to be a detailed walking design guide, and designers are ultimately encouraged to use specific design standards detailed in other national and regional guidance documentation.

Design Category	Design Principle	Design Principle Description	Applicable Detailed Design Guidance Document	Document Reference
Accessibility	Inclusivity	Removal of barriers to inclusive routes, e.g. topography, non-step access and poor / insufficient tactile paving. Takes account of different user types and requirements e.g. elderly, parents with children, etc.	Active Travel Wales	Page 105 (Tactile Paving), Sections 6.2.7 & 6.2.8, Page 123 (Gradients, Ramps and Steps), Sections 6.12.14 – 6.12.18
	Access	Free from barriers such as footway obstructions (e.g. parked cars, street furniture, overgrown foliage and vegetation).	Active Travel Wales Pedestrian Comfort	Page 36 (overhanging shrubbery), Section 4.5.4 Page 38 (street furniture), Section 4.7.6 Page 40 (advertising boards), Section 4.7.7 Page 257 (General Maintenance Tasks), Section 10.16 Appendix C: Street Furniture (see pedestrian buffer widths in
	Continuity	Footways should be continuous, e.g. without stoppages in footways that enforces users to either cross a road, walk on the roadside or use verges.	Guidance for London Active Travel Wales	relation to providing effective 'clear width' of the footway. Page 121 (street furniture obstructions), Section 6.12.6
	Directness	Routes should respect desire lines and minimise the requirement for detours. Opportunities to apply filtered permeability should be taken up to achieve this.	Active Travel Wales	Page 35 (Direct Pedestrian Routes), Section 4.4 Page 115 (Pedestrian & Cycle Links), Section 6.10.3 Page 154 (Comfort), Section 6.35.9 Page 260 (Maintaining routes through roadworks), Section 10.17
	direct pedestrian crossing opportunities at junctions, and across roads, also respecting desire lines.	Active Travel Wales	Page 35 (Crossing for impaired users), Section 4.4.3 Pages 152–154 (Crossing & Junction Design General Principles), Section 6.35.1 – 6.35.9 Pages 157 – 163 (Pedestrian Crossing Types), Section 6.37 – 6.43	
			Pedestrian Comfort Guidance for London	Step 2: Assess Pedestrian Crossings – general principles and assessment (pages 15 – 21)
Safety and Security	Security	Ensure that appropriate lighting provision is provided, determine if CCTV will be a beneficial addition to feelings of personal safety.	Active Travel Wales	Page 35 – 36 (Safe Routes), Section 4.5 Page 78 (Schemes for improving pedestrian provision), Section 5.6.43 Page 116 (Attractive Routes), Section 6.10.7 Pages 264 – 265 (Lighting), Section 10.12

Design Category	Design Principle	Design Principle Description	Applicable Detailed Design Guidance Document	Document Reference
Safety and Security	Visibility and Natural Surveillance	Ensure paths remain visible from other routes, ensure the path is overlooked and there are no blind corners / alleys. Designs should take account of CPTED principles. Vegetation should be well managed to stop lighting being blocked or sight lines obscured.	Active Travel Wales	Page 36 (Overlooking Routes), Section 4.5.4
	Safety Perception	Pedestrian areas should be free of graffiti and other forms of criminal damage. When determining the location / extent of pedestrian routes, the impacts of traffic volumes / speeds on pedestrian safety should also be considered.	Active Travel Wales	Page 36 (Graffiti, litter), Section 4.5.4 Page 261 (Safety at Bridges), Section 10.18.1
	Road Safety	Ensure that road safety principles are considered using the 'Safe Systems' and 'Vision Zero' approach	General principles	
Comfort	Footway widths	Clear and unobstructed paths, allowing wheelchair users, mobility scooters and pushchairs to pass each other. Should be suitable for their role and function e.g. routes to schools should enable parents to walk side by side with children. Some routes will require greater width due to larger pedestrian volumes.	Active Travel Wales	Pages 37–40, Section 4.7.2-4.7.8
			Pedestrian Comfort Guidance for London	Step 1: Assess Footway Comfort – general principles and assessment (pages 7 – 14) Appendix B: Recommended Widths Appendix C: Street Furniture
	Segregation	Pedestrian and cycle routes should be segregated from each other, and from vehicles.	Active Travel Wales	Pages 118–119 (Segregation Advantages and Disadvantages), Section 6.11.7
	Surfacing	Cohesive, stable, level / well-maintained surfaces (designed to accommodate wheeled users), with an appropriate surface material used.	Active Travel Wales	Page 37 (Pedestrian Comfort), Section 4.7.1 Page 41 (Choice of Surface Materials), Section 4.7.13 Page 242 (Damage to surfaces), Section 10.4.2
	Drainage	Well drained paths that are free from standing water.	Active Travel Wales	Pages 249 – 252 (Drainage), Section 10.9
	Gradient	Free of abrupt changes (e.g. slopes, steps, kerbs) and absolute levels should not be too steep. Long sections of downhill or uphill should be broken up with flatter sections and waiting / resting spaces where required.	Active Travel Wales	Pages 40–41, Section 4.7.9–4.7.16
	Cleanliness	Free of litter, grime and criminal damage such as graffiti.	Active Travel Wales	Page 206 (Litter Bins), Section 8.7 Page 259 (General Maintenance Tasks), Section 10.16.2
	Seating	Provision of regular seating opportunities. Seating should also be sympathetically designed to complement the local surroundings.	Active Travel Wales	Pages 199–200 (Seating), Section 8.3

Design Category	Design Principle	Design Principle Description	Applicable Detailed Design Guidance Document	Document Reference
Comfort	Quality of Space	Surroundings should appear friendly and interesting. The quality of the built environment and greenery should also be considered. Ensure that effort is made for pedestrian routes to have low levels of air pollution.	Active Travel Wales	Pages 204–206 (Planting), Section 8.6
	Nuisance	Only low levels of perceived noise should be audible from pedestrian routes. Pedestrian routes should be designed in a way that minimises the potential for antisocial gathering / behaviour.	Active Travel Wales	Page 116 (Minimise traffic nuisance), Section 6.10.6
Legibility	Conspicuity	Walking routes should be easy to find and follow.	General principles	N/A
	Way-finding	Presence of accurate, continuous, distinctive and legible directional information / signage. Signage should include destination information, distances in time, and symbols and pictures where appropriate.	Active Travel Wales	Pages 201–204 (Pedestrian Signage), Section 8.5
	Visual clues	Use of landmarks, focal points or distinctive features to navigate pedestrian routes.	Active Travel Wales	N/A

 Table 3.3
 Walking Design Principles

Cycling Culture / Unlocking Mode Shift Location: Cycle Superhighways, Copenhagen

The city of Copenhagen is a good example of how small and large scale cycling infrastructure has been implemented and subsequently delivered significant user benefits.

Copenhagen is developing a network of 28 Cycle Superhighways connecting 23 municipalities within the city region. The routes offer fast, comfortable and safe service, and connect residential areas with places of work or study.

An average increase of 30% in cycling was recorded following the opening of the network (currently 8 routes), with increases of between 30% to 60% following the opening of individual routes. Evaluations show that cyclists taking the routes for long trips, with an average trip on one of the routes to be an average of around 15km. The number of bike commuters in the 23 municipalities involved have risen with an average of 6% since 2012. Better physical fitness has also been observed, with a measured decrease in body age and 0.6% decrease in body fat within the first month of cycling. The socio-economic return was estimated in 2013 at 19% compared to the cost of the investment which is higher than other road, rail, or bridge projects.

An evaluation carried out with the involved municipalities showed that they considered having an independent management for the communication, application for funding to be extremely important owing to the cross-boundary nature of the cycle superhighway network.

- 3.9.1 The promotion and delivery of quality cycling infrastructure is a key mechanism in enabling active travel growth. Reinforcement of this statement is provided within LTN 1/20, which states that "we will need to see significant increases in cycling in our cities and towns, and everywhere else. To achieve that, the quality of cycling infrastructure must sharply improve, with the inclusion of properly-protected bike lanes, cycle-safe junctions and interventions for low-traffic streets to encourage people to cycle."
- 3.9.2 The guidance also refers to the importance of inclusive design and accessibility to run through the core design principles, and that designers should always aim to provide infrastructure that meets the principles and caters for the broadest range of people.

- 3.9.3 When applying the principles of LTN 1/20 it will be important to take account of the rural nature of some areas within B&NES and the differing speed limits that exist. This will help to ensure that the most appropriate infrastructure is delivered.
- 3.9.4 LTN 1/20 also states that infrastructure must be accessible to all and the needs of vulnerable pedestrians and local people must be considered early in the process to ensure schemes are supported locally in the long term.

Cycleway Improvements

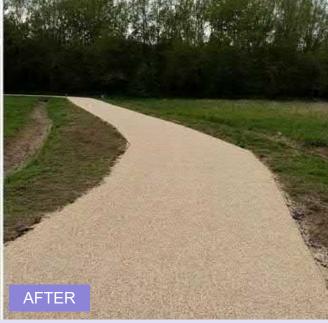
Location: Kennington Meadows Route Upgrade, Oxford

A number of improvements have been implemented on the existing National Cycle Route 5 at Kennington, Oxford, which now provides a high-quality route for everyone travelling from Kennington into the city. The path passes through Kennington Meadows and joins with the Thames Path and a local route into Oxford. It also forms part of the long-distance route, linking Reading to Holyhead. Improvements have included:

- Improved surfacing
- Accessible infrastructure (removing gates etc.)
- Improving drainage

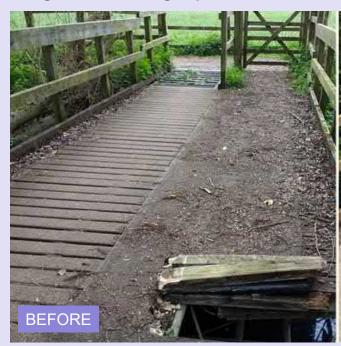
Surfacing Improvements

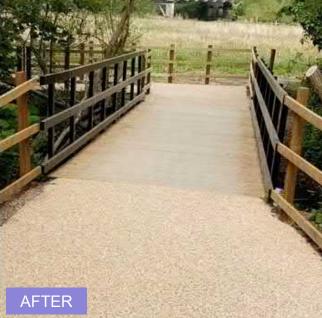




Source: Sustrans

Bridge and Surfacing Improvements





Source: Sustrans

Bridge and Surfacing Improvements



Source: Sustrans

3.9.5 This guidance is underpinned by the statements and design principles set out within LTN 1/20, whilst ensuring that a focus on specific B&NES design principles is maintained. The design of cycling infrastructure within B&NES therefore applies the fundamental principles outlined within the Walking and Cycling Vision and Objectives.

3.9.6 The core design principles within LTN 1/20 represent the key requirements for people wishing to cycle. Due to the close relationship between LTN 1/20 and Active Travel Wales guidance, the design principles are the same (e.g. people with to use routes that are Coherent, Direct, Safe, Comfortable and Attractive).

3.9.7 As previously noted, a number of design requirement categories relating to cycling have been identified, within which key principles have be identified that link directly to the Objectives. These design principles are a key mechanism for supporting and delivering the outcomes of the Objectives.

3.9.8 Table 3.4 defines and provides further details of the design principles themselves, and states the applicable design guide to be referred to, including a reference within the document itself. As per pedestrian design, this SPD is not intended to be a detailed cycling design guide, and designers are ultimately required to use specific design standards detailed in guidance documentation, relevant to the type of improvements being introduced.

Design Category	Design Principle	Design Principle Description	Applicable Detailed Design Guidance Document	Document Reference
Accessibility	Inclusivity	Removal of barriers to inclusive routes, e.g. designs to accommodate a full range of cycles (included adapted bikes and cargo bikes), cycle wheeling ramps etc.	LTN 1/20	Page 40-43 Page 130
	Directness and Continuity	Routes should provide the shortest and fastest way of travelling from place to place, e.g. provision of facilities at junctions that minimise delay and the need to stop. Cycle routes should also respect desire lines, minimise detours and minimise gaps in pathways. Opportunities to apply filtered permeability should be taken up to achieve this	LTN 1/20	Page 30 (core principles) Page 97 (junction design)
	Crossings	Well-designed, efficient, well-timed and direct cycle crossing opportunities e.g. Toucan crossings allowing cyclists to crossroads without being requested to	LTN 1/20	Page 101-104
		dismount.	Pedestrian Comfort Guidance for London	Step 2: Assess Pedestrian Crossings – general principles and assessment (pages 15 – 21)
	Parking	Cycle parking should be provided at a number of locations such as; places of residence, interchanges with other modes of transport, short stay destinations such as shops and cafes and long-stay destinations such as for work and education. Parking should be secure and seek to reduce incidence of theft. Appropriate parking types, dimensions and quantities should be provided for anticipated volumes and types of users.	LTN 1/20 Parking Standards Section of T&D SPD	Page 132-139 Page TBC
Safety and Security	Segregation	Cyclists should be treated as vehicles and segregated from pedestrians and traffic where necessary, which will also help to give a greater perception of safety. The appropriate type of segregation will be dependent on the volume and flow of traffic and location. Forms of segregation between traffic and cyclists include advisory cycle lanes, mandatory cycle lanes, contraflow lanes, on-road kerbed / stepped cycle tracks and other forms of light segregation.	LTN 1/20	Page 51-63 Figure 4.1, Page 33
	Alignment & Camber	Good horizontal alignment should not include diversions, fragmented facilities or obstructions. Negative camber falling to the outside of a bend should be avoided.	LTN 1/20	Page 45-46
	Cycling Speeds	Appropriate design speeds on dedicated on / off-road cycle routes for a mix of riders should be applied.	LTN 1/20	Page 43

Design Category	Design Principle	Design Principle Description	Applicable Detailed Design Guidance Document	Document Reference
Safety and Security	Personal Security	Minimise the risk of crime on more remote routes through design, e.g. removal of hiding places along a route, by providing frequent access points, by providing lighting, and by passive surveillance from overlooking buildings and other users. Routes must both be safe, and feel safe, if they are to be inclusive and support cycling for all.	LTN 1/20	Page 88 (lighting)
	Stopping Distances & Visibility Splays	Appropriate stopping sight distances should be used at conflict points. Appropriate visibility splays should be provided for motor traffic on the main route approaching a crossing used by cycles and any crossing of a highway or junction between cycle routes should be located such that all users have full visibility. This should also consider cycle speeds.	LTN 1/20	Page 44-45
Comfort	Segregation	Surfacing should be cohesive, stable, level, smooth, have good skid resistance and be well-maintained with minimal stopping and starting. The requirement for tactile surfacing and types of materials to be used should also be carefully considered to ensure inclusive access. Cycle routes should be attractive for year round usage.	LTN 1/20	Page 58 (tactile guidance) Page 71, 86 (surfacing) Page 164 (materials)
	Drainage	Cycle tracks should be constructed with a crossfall or central camber to ensure adequate drainage and avoid standing water.	LTN 1/20	Page 46
	Gradient	Management of steeper gradients – gradients can physically hinder journeys uphill, but can also be a safety issue due to higher downhill speeds.	LTN 1/20	Page 45-46
	Widths	Ensure that appropriate widths are applied to cycle tracks and paths, e.g. increased width to accommodate higher cycle flows or to facilitate adapted bikes.	LTN 1/20	Page 43 (highways) Page 76 (low traffic routes)
Legibility	Conspicuity	Cycle routes should be easy to find and follow. Ensure appropriate positioning of cycling related traffic signs. Appropriate lining and guidance to facilitate use at night should also be considered.	LTN 1/20	Page 58
	Way-finding	Presence of accurate, continuous, legible directional information / signage. Signage should include destination information, distances in time, and symbols and pictures where appropriate and should also be proportionate to the type of route.	LTN 1/20	Page 146-151

Table 3.4 Cycling Design Principles

Cycleway Improvements

Location: Eddington, Cambridge

Eddington is a new neighbourhood located to the north-west of Cambridge being developed by the University of Cambridge. Outline consent was granted in 2013 for the 3,000 dwellings, 2,000 student bed spaces, 100,000m2 of employment floor space and associated retail, community, education and healthcare facilities. Phase 1 of the development opened in 2017. Phase 2 of the development is currently under consultation.

Eddington provides cycleways along the main spine road (Eddington Avenue) between the development accesses from the A1307 Huntington Road and the A1303 Madingley Road provided as a segregated cycleway which is partly shared with footways. The development also includes the Ridgeway cycleway. The cycleways shared use is on a level surface, however the cycleway is clearly marked throughout the development by a contrasting surface treatment to the footway. The footways / cycleways are raised and continuous over minor side junctions. Tactile paving is provided along the routes at junctions. The cycleways bypass bus stops via a 'floating bus stop' arrangement.



Source: Eddington, Cambridge



Source: Eddington, Cambridge

Cycleway Improvements Location: Whitehouse Street, Bristol

A segregated cycleway has been implemented on Whitehouse Street in Bristol. The cycleway forms part of the 'Filwood Quietway' – a strategic cycle route between Filwood in South Bristol and Bristol City Centre.

This is an excellent example of high-quality cycle infrastructure with a clear, coherent arrangement with provision of GI in an urban environment which also serves as Sustainable Urban Drainage for the cycleway and carriageway.

Segregated Two-Way Cycle Lanes Whitehouse Street, Bristol (View to the North)



Source: B&NES, 2021

Segregated Two-Way Cycle Lanes Whitehouse Street, Bristol (View to the South)



Source: B&NES, 2021

3.10 Natural and Built Environment

- 3.10.1 The importance of heritage is clearly referenced within the B&NES Placemaking Plan, specifically in relation to Bath as a UNESCO World Heritage Site and the Somer Valley for its rich industrial heritage. The region is also abundant in greenspace, home to over 50 conservation areas with rich and diverse wildlife, including many protected species and habitats. Bath is a landscape city, surrounded by hills and valleys that come right into the city centre.
- 3.10.2 The importance of considering heritage, conservation, biodiversity and the natural environment when implementing walking and cycling infrastructure is integral to the Walking and Cycling Objectives, for example Objective 3, 'safeguarding historic elements' and Objective 6, 'prioritising the needs of pedestrians and cyclists and enhancing the quality of the natural and built environment'.
- 3.10.3 To ensure these elements are considered, additional design principles should be considered as follows

- Reinforce the character of the region; and
- Seek to use traditional materials.
- 3.10.4 These principles will be achieved by applying the following supplementary objectives:
- Apply innovative and creative solutions;
- Create flexible spaces that allow a range of activities; and
- Maintain a consistent design philosophy.
- 3.10.5 It is recognised that there will be instances where there may be perceived conflict between delivering walking and cycling facilities which meet the design principles outlined in the SPD, and conserving the natural and built environment. Ensuring an open dialogue at an early design stage between professionals from a range of disciplines will be vital to delivering solutions which both support walking and cycling and safeguard the natural and built environment. It is incumbent on all parties to engage in a timely manner and proactively work towards solutions where such perceived conflicts arise.

3.10.6 Whilst defining design requirements for walking and cycling infrastructure is largely an objective process, using published national and regional guidance to develop detailed design, accounting for heritage and other environmental elements is likely to be a more subjective activity. For example, the needs and aspirations of each area are different, and subsequently local guidance should be used to inform design decisions wherever possible. The B&NES Placemaking Plan and Bath Pattern Book should be used as a guide when considering walking and cycling infrastructure in relation to heritage, conservation and biodiversity.

3.10.7 Consideration should be given to a range of infrastructure options. Where it is necessary to reduce the amount of signing and other street furniture passive provision through reduced speed limits may be the most appropriate way to provide safety for pedestrians and cyclists.

3.10.8 The following sub-sections provide a summary of the key areas for consideration.

World Heritage Site

3.10.9 The City of Bath is internationally recognised as an extraordinary architectural creation "a masterpiece of human creative genius", designated by UNESCO as a World Heritage Site of outstanding universal value. This status is protected through the combination of its Conservation Area designation, the considerable number of listed buildings and natural environment designations.

Conservations Areas

3.10.10 Across B&NES there are over 50 Conservation Areas, which are designated as having special architectural or historic interest. It is the responsibility of B&NES Council to protect these areas, and there are extra rules to control building work. Conservation Area Management Plans include more information to help protect Conservation Areas.

Listed Buildings

3.10.11 There are a large number of listed buildings within B&NES, with many located in Bath. Many of these include features that interface with streets such as outbuildings and boundary walls, and features such as lighting gateways and materials such as paving and

setted surfaces. Listed buildings are afforded statutory protection which means that changes that take place which could affect its character as a building of architectural or historic interest are controlled.

Special Landscapes and Biodiversity

3.10.12 Areas of biodiversity and special landscapes are protected across the B&NES District. Changes to the landscape, as well as the timing of construction work, can be harmful to some habitats and species.

Design Requirements

3.10.13 When designing walking and cycling infrastructure, it is considered that the following principles should be applied:

- Identify constraints or requirements that may apply if you are within or adjacent to a designated place or feature (protect, retain, preserve and enhance etc.);
- Engage early and closely with professionals and stakeholders from a range of affected disciplines;
- Retain and protect historic / natural features, with reference to:
 - Natural stone paving or setts, kerbs and channels, mounting stones or lighting plinths, coal chutes, lighting columns, boundary walls, entrance stones, railings and original light fittings; and
 - Areas of natural habitat, landscape and trees vulnerable features / species.
- Preserve and enhance the character of the place, with reference to:
 - The setting to buildings, landscape, topography;
 - Use of natural materials in Bath and on key streets in Conservation Areas;
 - Repair setted streets or add new setted streets and features;
 - Replace railings / gates and improve boundary treatments; and
 - Historic information and interpretation / wayfinding.
- Respect and contribute to local character, layout, and overall design arrangement and detailing with reference to:
 - Proportionate materials; and
 - Recognisable street pattern and footway

Improvements to Existing Infrastructure Location: Kennet and Avon Canal Towpath Upgrade, Bath

B&NES, in partnership with the Canal & River Trust has been progressing a programme of improvements to a 2.2km stretch of the Kennet and Avon Towpath between Bath City Centre (Darlington Warf) and Bathampton (Bathampton Road Bridge). This stretch is one of the most heavily used sections on the towpath at a time when more people than ever are visiting their local waterways. Running through the historic Sydney Gardens, the canal in Bath has become a haven for people and wildlife, as well as an important part of the ancient city's heritage. Linked paths and access routes to / from the towpath have also been improved, including a 300m path to Grosvenor River Bridge Road linking to the residential area of Larkhall.

The path has been undergoing an improvement scheme to widen and resurface the path along the 2.2km route to provide an all-weather path suitable for all users. Resurfacing of the towpath between has made the pathway much more accessible to more people to improve local walking / cycling journeys. The installation of seating and cycle stands have also been installed as part of the improvements which are also to help make the path accessible for all and improve the attractiveness of use for all users.

The project was funded through the Cycle City Ambition Fund and carried out in partnership between B&NES Council and the Canal & River Trust.

Quality-Led Infrastructure Reflecting Local Context Location: Developing London's Infrastructure

There is an aim for 80% of all journeys in London to be walking / cycling / public transport by 2041. Achieving this target will require a large increase in cycling levels and the Cycling Action Plan, published in December 2018 by TfL, provides details of how this will be achieved, including significant investment in new infrastructure to expand the cycle network.

Different infrastructure approaches are used on different streets, but an overarching set of Quality Criteria ensures that all new sections of the network offer a consistently high quality. On busier streets, segregation is often used, designed to make cycling safer by keeping cyclists away from general traffic. On residential streets, measures such as traffic calming and filtering are used to reduce levels of traffic. Historically, routes have been delivered under Cycle Superhighways and Quietways brands, but these are now being merged into a single network called Cycleways. Physical segregation on the routes is designed to improve the safety of cyclists and prevent motorists from encroaching into the cycle lane.

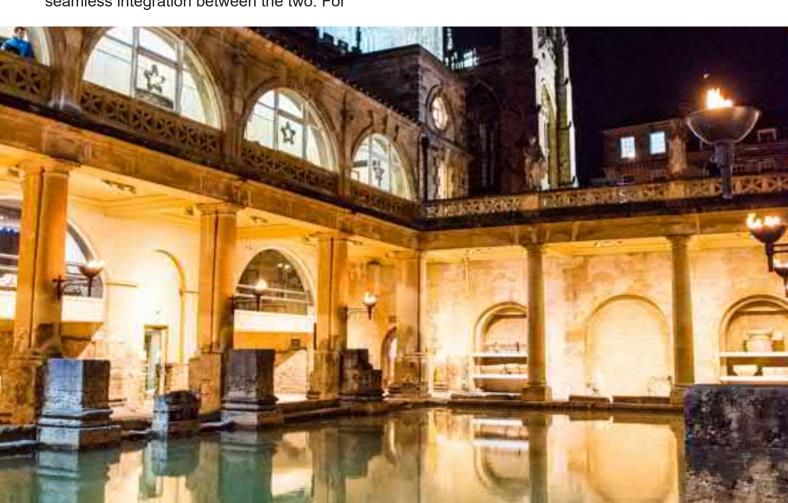
3.11 Developer Requirements

3.11.1 This section of the SPD seeks to create a framework by which good quality walking and cycling infrastructure can be introduced, in line with the overarching Walking and Cycling Vision and Objectives. The design principles outlined in the previous sections provide the basis for progressing designs for developers. This section provides a checklist for developers and applicants to ensure their compliance with B&NES' requirements in relation to walking and cycling.

Active Travel Checklist

- 3.11.2 The SPD creates a mandatory requirement for this Active Travel Checklist to be filled in and included as part of the Transport Assessment (TA) documentation submitted as part of a planning application. The Checklist needs to reference locations in the TA where it has been followed. Completing the Active Travel Checklist is not intended to be an onerous exercise, rather a succinct way of demonstrating that walking and cycling has been suitably prioritised and assessed in line with the requirements of this SPD.
- 3.11.3 Developments must plan for both on and off-site active travel movements, and seamless integration between the two. For

- off-site movements, origins, destinations and routes must be analysed in terms of travel demand and potential barriers to walking and cycling. If issues are identified, solutions must be proposed, in line with the SPD design principles, and consulted on with relevant stakeholders. For on-site provision, the Checklist asks a series of questions designed to ensure that masterplans support active travel.
- 3.11.4 The Checklist applies to all forms of development, at all scales, although the level of assessment needed will vary depending on the level of travel demand generated. It is expected that developers will scope details with the B&NES Highways team as part of the pre-application process. Any variation or de-scoping from the checklist will need to be agreed with the B&NES Highways Development Management Team.
- 3.11.5 An example of the Active Travel checklist is provided within Table 3.5.
- 3.11.6 An additional developer / applicant focused checklist covering documentation and other assessment requirements is included at Appendix B, which would need to be discussed and agreed with the Local Highway Authority (LHA) during the application process.



Item	Sub-item	Y/N	Location in TA (if relevant)
Off-site Provision / Routes	Commuting		
1 0	Retail		
travel times) of where people using the development will want to travel to and from been identified?	Education		
to and nom peem dentined:	Public transport (e.g. bus stops, rail stations)		
	Leisure, including countryside, parks, open space		
	Strategic active travel routes, e.g. Bristol to Bath Railway Path		
Does the TA identify the existing routes to these locations, including alternative routes which may be unattractive at present?			
Has the potential level of walking and cycling demand and options to grow been identified for aforementioned destinations? (Level of detail regarding peak / off peak demand should be negotiated with the LHA)			
Are potential active travel schemes which may influence active travel routes well understood in terms of existence, content, status, deliverability and funding? E.g. LCWIP			
Have route audits of aforementioned walking and cycling routes	On foot		
been undertaken using an appropriate audit tool? NB it is an LTN1/20 requirement that designers undertake a cycle site-visit. This mandatory for designs and desirable for route audits.	By bicycle		
Have the route audits identified existing issues which could present	Walking		
a barrier to active travel for some users, and are these issues documented in terms of location, photographs and description?	Cycling		
Are appropriate solutions proposed to issues identified in route audits, commensurate to the scale of active travel demand which could be achieved by attractive infrastructure? Solutions would need to be	Walking		
compliant with CIL guidance and need to reflect the mode share that could be achieved with a good walking / cycling network.	Cycling		
Does the resultant active travel network (post-implementation) provide routes suitable for a range of user types?			
Has there been consultation on the issues and potential solutions?	With the LHA		
	With the public		
Has there been appropriate discussion and agreement as to active travel solutions proposed with other LPA departments? Including ecology, landscape, conservation, arboriculture, drainage and others as appropriate to the scheme.			

Item	Sub-item	Y/N	Location in TA (if relevant)
On-site Provision			
Do the pedestrian and cyclist access points allow for seamless integration with the wider off-site active travel route network?			
Have opportunities to prioritise active travel over private vehicles been taken up? including in terms of site access and internal site layout.			
Does the masterplan respond well to pedestrian and cyclist desire lines? Including directness of routes, alignment of crossing points and legibility of wayfinding.			
Have opportunities to reduce vehicle traffic flows and speeds been taken up?			
Is pedestrian and cycle infrastructure provision appropriate to expected levels of ped / cycle demand and traffic speeds and flows?			
Is street space allocated fairly between road users, and have carriageway widths and corner radii been minimised, appropriate to the intended use of the highway?			
Are walking and cycling facilities, e.g. parking, showers, changing facilities, and benches conveniently located for users?			
Will active travel routes and facilities feel safe for all users? For example, this relates to natural surveillance, visibility and lighting, as well as road safety. Perception of safety is as important as actual safety.			
Do active travel routes complement and enhance the natural and built environment?			

Table 3.5 Active Travel Checklist

Cycleway Improvements

Location: City Centre Cycle Routes, Greater Manchester

Manchester has constructed six city-centre "Cycleways" which provide new routes that give cyclists more space on traffic-free paths, quiet roads, and special lanes separated from the traffic. These are summarised below:

- Airport Cycleway a route connecting Manchester Airport with Wythenshawe, Timperley and Sale. Mostly traffic-free with upgraded quiet lanes. On busier sections, the cycle path is separated from other traffic, with dedicated crossing points at junctions.
- Ashton Canal Cycleway an entirely traffic free route on a resurfaced towpath between Manchester City Centre to Ashton.
- Bridgewater Way an entirely traffic free route on a resurfaced towpath between
 Manchester City Centre to Altrincham and the Trafford Centre.
- Broughton Cycleway a cycle lane separated from traffic between Manchester City Centre and Broughton. This is the longest 'segregated' cycle route in the country. Special traffic islands and bollards are provided to physically separate cycles from traffic in both directions.
- Mersey Valley and Stockport Cycleway mostly traffic free between Stockport to Parrs Wood and Cheadle. Includes some gravel / off-road tracks.
- Oxford Road and Wimslow Road Cycleway a special cycle lane segregated from traffic between Didsbury and Manchester City Centre.

These are generally good examples from a range of perspectives and routes include elements such as all-weather surfacing, lighting and cycle parking and also complement the Metrolink services, which offers a mode interchange between public transport and cycling.

Parking Standards



4. Parking Standards



4.1 Introduction

- 4.1.1 This section of the Transport and Development Supplementary Planning Document (SPD) defines Bath & North East Somerset (B&NES) Council's approach and expectations for vehicle and cycle parking at new developments. This supports the B&NES Local Plan Partial Update (LPPU) to help deliver sustainable development and economic growth by setting how parking and its effects will be managed. This section of the SPD informs Policy ST7 of the B&NES LPPU (part of the Local Development Plan) to provide details as to the specific parking standards for different types of development.
- 4.1.2 The overall purpose of this section of the SPD is to set out the parking standards for new residential and non-residential development. The parking policy outlined contributes towards meeting the Council's environmental targets as well as providing other benefits for the District by:
- Enabling a reduction in vehicle usage, achieved by reducing the convenience of private vehicles in comparison with active travel (i.e. walking and cycling) or public transport, whilst not compromising mobility for disabled persons. This will improve air quality, health and congestion whilst reducing carbon and nitrogen oxide emissions. It will also provide the opportunity to reallocate road space to sustainable transport infrastructure and Green Infrastructure (GI) to the benefit of climate, ecology and health and wellbeing across the District.
- Creating better places, with less emphasis given over to the parking of private vehicles on street and roads. This will support the provision of GI, social spaces and sustainable transport infrastructure. This can be achieved with good design principles, enabling a reduction

- in the proportion of space allocated to cars and parking, along with measures to enable to reduction in car ownership and usage. A combination of which, could provide the ideal situations for car-free developments.
- Avoiding haphazard, informal or inconsiderate parking behaviours and its associated effects (for example, parking on footways as a result of excess demand for on-street parking supply) by providing sufficient parking to promote sustainable travel, controlling on-street parking where appropriate and enabling travel behaviour change.
- Enhancing the accessibility of development sites by raising awareness of the potential improvements to sustainable travel modes that can lead to an increase in walking, cycling and public transport use in B&NES.
- 4.1.3 Information in relation to Electric Vehicles (EV) and Ultra-Low Emission Vehicles (ULEV) is provided separately in Section 5 of this Transport and Development SPD.
- 4.1.4 The council recognises that it is a challenge to ensure that parking within the District is attractive, safe and convenient for users and that a balance must be struck between providing sufficient parking where car travel is essential for day-to-day accessibility, and reducing the reliance on the private car to achieve the necessary benefits available.

Climate & Ecological Emergencies

4.1.5 The principles of the parking standards are aligned with the B&NES Council Corporate Strategy objectives to tackle the Climate and Ecological Emergency and to achieve a net zero carbon emissions by 2030 by reducing car usage.

4.1.6 Existing levels of congestion within the district impact on journey times and result in higher carbon and other harmful emissions, which lead to poor air quality, as well as having negative impacts on health and well-being of residents. At present transport contributes 29% of total emissions within the district. B&NES therefore considers that there remains a "clear and compelling case," in line with the National Planning Policy Framework (NPPF), to utilise parking standards as a policy lever to positively address these issues throughout the District.

4.2 Local Evidence & Context

- 4.2.1 The setting of parking standards for B&NES has been evidence-led and informed by industry best practice. The NPPF provides guidance to local authorities for the setting of parking standards, stating that the following is to be considered:
- "Consideration of accessibility;
- The type, mix and use of development;
- Public transport; car ownership levels; and
- The need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles".
- 4.2.2 Information in relation to EVs and Ultra-Low Emission Vehicles (ULEV) is provided separately in Section 5 of this Transport and Development SPD. Evidence, data and information in relation to the remaining matters are outlined in the following sections.

Spatial Context

4.2.3 When devising parking standards for B&NES, recognition has been paid to the different area contexts across the District, and varying levels of accessibility achieved for journeys by walking, cycling and public transport. The revised parking standards for B&NES include a flexible approach in recognition of the diversity across the District and ensures that this is accounted for when determining appropriate level of parking for vehicles and bicycles.

Public Transport

4.2.4 The NPPF states that the availability of and opportunities for public transport should be considered by the Local Authority when setting parking standards. Understanding the existing public transport situation in the district allows us to understand what opportunities there are for the future.

- 4.2.5 B&NES has four railway stations that serve different parts of the district: Bath Spa, Oldfield Park, Keynsham and Freshford. Bath Spa is the main railway station within the District, located in Bath City Centre and providing access to the other stations in B&NES, as well as to the wider region. Railway services are available from Bath Spa to Bristol Temple Meads and beyond towards South Wales, the South West and Gloucestershire (via Keynsham and Oldfield Park) as well as to Wiltshire and the South Coast (via Freshford). Services are also available to London Paddington (via Chippenham, Swindon, Didcot and Reading).
- 4.2.6 During peak hours, these stations benefit from services between two and four times per hour however, with service frequencies more sporadic outside of peak times.
- 4.2.7 Naturally, urban centres are the most accessible areas using public transport. Bath, Keynsham and some towns and villages benefit from bus services between each other, however, more rural areas are typically only served by relatively limited and infrequent public transport provisions.
- 4.2.8 Data obtained from bus operators in the District indicates that on average between 25% to 50% of bus capacity is being used, with the occasional service running over capacity. This suggests that there is spare capacity within the existing bus network to accommodate substantial levels of mode shift.

Future Transport Schemes

- 4.2.9 Various transport schemes are planned for B&NES and the wider West of England region over the coming years.
- 4.2.10 The West of England Joint Local Transport Plan (JLTP4) includes a range of transport scheme for B&NES, including the introduction of mass transit across the West of England region, including a link between Bristol City Centre and Bath which will provide faster and more reliable public transport journeys for residents and visitors to the area. There will also be improvements and extension to the MetroBus network across the West of England.
- 4.2.11 The JLTP4 schemes likely to be implemented (i.e. those considered by B&NES Council to be 'certain', 'more than likely' and 'reasonably foreseeable') are summarised in Table 4.1.

Table 4.6 Summary of JLTP Improvements by Mode

Mode	Key Improvements	JLTP Ref.
Air Quality	Integrated network of strategic cycle routes	E13, E16, E22
	Improvements to local cycle networks and integration with strategic routes.	
	Improvements to pedestrian / cycle facilities as part of junction upgrades.	
Bus	Vehicle fleet improvements.	E13, L3, T2
	Improved facilities at bus stops.	
	Bus priority measures.	
	New / improvements to existing transport interchanges.	
Rail	Increased connectivity through opening of new stations / lines	C3, C4, E4,
	Increased frequency of services.	E22
	Improvements to station facilities.	
	Enhancements to accessibility to stations by sustainable modes.	
Mass Transit	Provision of road links to enable reallocation of existing road space to provide Metrobus services between Bath and Bristol and potentially light rail in the long-term.	E21, T2, T5
	Potential for light rail, to be considered on key routes entering Bath.	
Decarbonisation	Bus fleet improvements.	E14, L3
of Vehicle Travel	Increasing public EV charging infrastructure.	

- 4.2.12 In addition to the major schemes, JLPT4 identifies general measures / actions which will contribute towards accommodating growth in sustainable transport / reducing the impacts of transport across the West of England.
- 4.2.13 Other schemes for B&NES are identified in the Transport Delivery Action Plan for Bath. Phase 1 of the Plan sets out the current and future transport situation in Bath, identifying issues and challenges. The next phase (Phase 2) will involve development and assessment of transport options to address the issues and challenges, with consideration to delivery and funding mechanisms. Scheme options will then need to be consulted on (Phase 3) and business cases subsequently developed (Phase 4). Given the current position of the Plan the JLTP4 is considered the current and most appropriate reference in terms of identification of major transport schemes,

however consideration should be given to the future phases of the Plan when deriving parking standards.

- 4.2.14 The West of England Local Cycling and Walking Infrastructure Plan (LCWIP) proposes the creation of new / upgrades to existing walking and cycling routes that enable active travel within Bath City Centre, Keynsham and the Somer Valley. The improvements are shown on plans included at Appendix C.
- 4.2.15 These schemes have the potential to significantly increase the level of accessibility within the District, for example along proposed mass transport corridors, and as such should be taken into consideration to derive appropriate levels of parking. The Accessibility Assessment, as discussed in Section 4.11, includes a process to consider the effects of future transport schemes on local accessibility.

Enjoy Waltham Forest

Location: London Borough of Waltham Forest

The London Borough of Waltham Forest has introduced 13 schemes that make walking, cycling and public transport more attractive. Such schemes include creating new cycle lanes, upgrading pedestrian crossings to prioritise their movements, improving public spaces and reducing the speed limit to 20mph on residential roads.

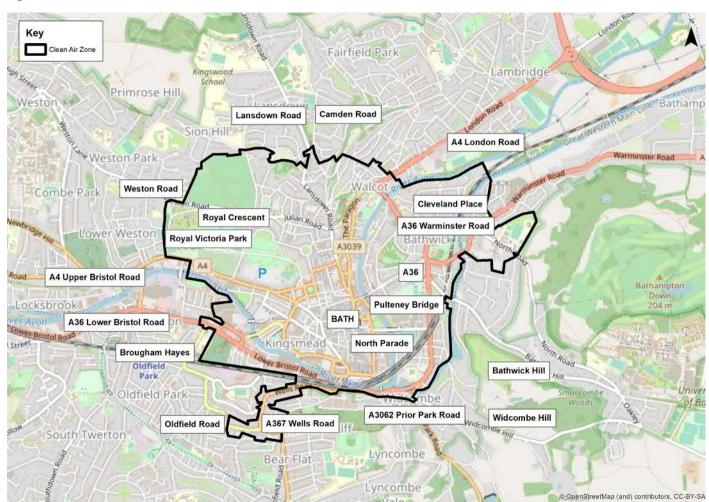
Since the schemes have been introduced, the borough has seen an increase of 103% in cycling whilst a 7% decrease in car use. Because of this, it is estimated life expectancy in the area has increased by 6 weeks.

Air Quality

4.2.16 Air pollution is the largest environmental risk to public health, with a high concentration of pollutants. Short term exposure to air pollution can exacerbate asthma and respiratory conditions, and exposure over several years can contribute to the development of cardiovascular conditions such as asthma and bronchitis, and lung cancer. From an environmental point of view, pollutants such as Nitrogen Oxide (NOx), Carbon Monoxide (CO) and Carbon Dioxide (CO2) can have significant global warming potential. In sufficient concentrations, NOx, can also lead to deposition of nitrogen in sensitive habitats, contributing to eutrophication or otherwise degrading the habitat.

- 4.2.17 B&NES currently has five Air Quality Management Areas (AQMA), where levels of nitrogen dioxide exceed the national annual average objective of 40 micrograms per cubic metre (μg/m3). These areas are specifically Bath (2002 declaration), Keynsham (2010 declaration), Saltford (2013 declaration), Temple Cloud (2018 declaration), and Farrington Gurney (2018 declaration).
- 4.2.18 A Clean Air Zone (CAZ) in Bath was put into place on 15th March 2021, which involves charging higher emissions vehicles (except cars) for driving into Bath City Centre. The area covered is shown in Figure 4.1.

Figure 4.1 Extent of Bath Clean Air Zone



4.2.19 Air quality through the interrelation between car use and emissions has been a key consideration when setting parking standards. This has also been considered in further detail with respect to ULEV provision as set out in Section 5 of this SPD.

Vehicle Ownership Levels

4.2.20 2011 Census data has been interrogated in order to gain an understanding of vehicle ownership and use across the district. The level of vehicle ownership per household across B&NES is illustrated in Figure 4.2. Data relating to the method of travel to work by ward is also summarised in Table 4.7.

4.2.21 The data shows that that the more urban areas within B&NES have lower levels of vehicle ownership compared to the more rural areas, correlating with a greater number of people travelling to work by sustainable means or working from home (as shown in

Table 3.3). This further demonstrates that the levels of vehicle ownership and access to sustainable transport varies across the District. It is therefore important that parking standards are provided using a zoned approach to reflect these differences. The parking standards zones are outlined in Section 4.5. The Accessibility Assessment provides a further refinement, as outlined in Section 4.11.

Figure 4.2 Car Ownership per Household, by Ward (2011 Census Data)

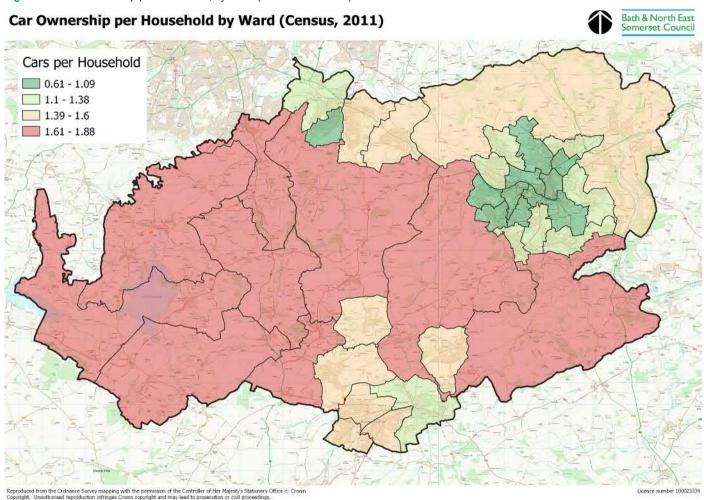


 Table 4.7
 Method of Travel to Work per Ward Workplace and Mode of Travel (2011 Census Data)

Ward	Car-Driver	Total Non- Car Driver	Walk	Cycle	Bus	Rail	Car Share	Other
Abbey	27%	73%	47%	3%	9%	10%	2%	2%
Bathavon North	65%	35%	9%	6%	8%	5%	5%	3%
Bathavon South	69%	31%	10%	4%	4%	7%	4%	2%
Bathavon West	68%	32%	9%	2%	9%	3%	6%	3%
Bathwick	37%	63%	32%	5%	12%	10%	3%	2%
Chew Valley North	81%	19%	8%	2%	2%	2%	3%	2%
Chew Valley South	85%	15%	7%	1%	1%	1%	4%	1%
Clutton	82%	18%	5%	1%	3%	1%	4%	3%
Combe Down	57%	43%	17%	4%	9%	5%	6%	2%
Farmborough	79%	21%	6%	2%	4%	2%	4%	2%
High Littleton	85%	15%	5%	1%	2%	1%	4%	2%
Keynsham East	70%	30%	9%	3%	7%	4%	4%	2%
Keynsham North	63%	37%	13%	3%	9%	5%	5%	2%
Keynsham South	66%	34%	12%	2%	9%	3%	6%	2%
Kingsmead	33%	67%	42%	5%	8%	8%	3%	2%
Lambridge	55%	45%	22%	6%	7%	4%	4%	2%
Lansdown	42%	58%	37%	3%	5%	8%	3%	2%
Lyncombe	53%	47%	21%	4%	6%	10%	5%	2%
Mendip	81%	19%	7%	1%	3%	1%	5%	2%
Midsomer Norton North	77%	23%	11%	2%	2%	1%	5%	2%
Midsomer Norton Redfield	76%	24%	10%	2%	3%	1%	6%	2%
Newbridge	47%	53%	29%	7%	8%	4%	3%	2%
Odd Down	58%	42%	13%	3%	14%	3%	7%	3%
Oldfield	41%	59%	32%	4%	10%	5%	6%	3%
Paulton	82%	18%	7%	1%	2%	1%	5%	2%
Peasedown	76%	24%	5%	1%	7%	1%	7%	2%
Publow and Whitchurch	80%	20%	6%	1%	7%	1%	5%	2%
Radstock	75%	25%	8%	2%	5%	1%	7%	2%
Saltford	72%	28%	7%	5%	9%	2%	5%	2%
Southdown	56%	44%	17%	3%	11%	3%	8%	2%
Timsbury	78%	22%	7%	2%	4%	1%	5%	3%
Twerton	47%	53%	24%	4%	13%	1%	8%	3%
Walcot	43%	57%	36%	4%	5%	7%	3%	2%
Westfield	73%	27%	12%	3%	4%	0%	6%	2%
Westmoreland	39%	61%	34%	4%	10%	7%	5%	2%
Weston	52%	48%	23%	5%	9%	4%	5%	2%
Widcombe	36%	64%	38%	4%	7%	11%	3%	1%
Average	62%	38%	17%	3%	7%	4%	5%	2%

4.2.22 It is recognised that the 2011 Census is dated, however it remains the most comprehensive dataset available in relation to vehicle ownership at the time of producing this SPD. The evidence base incorporates data from a range of sources and does not rely entirely on census data. Granularity has been incorporated into the application of parking standards (e.g. through the Accessibility Assessment outlined in Section 4.11 / Appendix E) to enable localised and recent evidence to be used in establishing optimum parking levels for specific locations.

Benchmarking Parking Standards Policy

- 4.2.23 A key objective for B&NES, as set out in Policy ST1 of the Placemaking Plan, is to promote sustainable travel and reduce dependency on the private car. The opportunity to contribute towards these aims through influencing levels car ownership has been investigated. Influencing car ownership can have benefits in terms of:
- Reducing car travel, with the associated benefits on air quality, health and wellbeing and the environment;
- Improving public spaces, by removing the burden of providing car parking on-street or within dedicated car parks; and
- Providing opportunities to reallocate road space to sustainable modes, for example through the provision of segregated cycling infrastructure.
- 4.2.24 Across the UK, the average car is parked at home for 80% of the time, parked elsewhere for 16% of the time and is only on the move for 4% of the time¹. There are therefore a significant number of vehicles which contribute to parking demand with only limited use.
- 4.2.25 B&NES commissioned a benchmarking review in 2017² of adopted parking policy across even comparable locations (Lincoln, Wiltshire, Cambridge, Canterbury, Oxford, Winchester and York) with the following key findings:
- Maximum car parking and minimum cycle parking standards are used in six of the seven locations. The seventh (Lincoln) had

- no standards and agreed parking provision on a case-by-case basis (as do some other LAs);
- There are significant variations between the level of parking standards between LAs; and
- Most LAs differentiate standards based on location, either using zones, accessibility assessment, flexibility in application, or a combination thereof. All have a mechanism to agree departures from standards.

Vehicle Ownership for Houses of Multiple Occupation (HMO)

- 4.2.26 B&NES Council commissioned research³ into some key areas connected to the setting of parking standard, including in relation to Houses of Multiple Occupation (HMO). The study was conducted across 634 HMO households (574 containing solely students, 25 mix of students and non-students and 35 entirely non-student HMOs).
- 4.2.27 The results from the surveys suggest an average of 4.5 bedrooms per HMO, with an average of 0.9 cars per HMO. This compares to a range of car ownership across B&NES from 0.61 cars per household in Bath City Centre, to 1.65 in the more rural areas. This supports the findings by a 2007 study by DCLG (now known as Ministry of Housing, Communities & Local Government) that HMOs result in no net increase in parking demand over that of a family home.
- 4.2.28 The research indicated that the vehicle / bedroom ratio is higher in non-student HMOs compared with student HMO dwellings, but this was not shown to be statistically significant within the study.

Garages

- 4.2.29 B&NES Council commissioned research⁴ into some key areas connected to the setting of parking standard, including in relation to the uses for garages at new residential developments.
- 4.2.30 The research surveyed 611 households with a garage across 12 new housing developments. This found that 31% of respondents park their car in the garage, 93%

¹ Bates, J. and Leibling, D. (2012).

² BuroHappold Engineering (2017)

³ Crystal Market Research (2019)

⁴ Crystal Market Research (2019)

use their garages for general storage and 56% stating they do not park their car in the garage as they need the space for "other things". This research suggests that as around one in three households use a garage for parking, garages cannot be relied upon to provide the parking in perpetuity.

Purpose Built Student Accommodation

- 4.2.31 B&NES Council commissioned research⁵ into some key areas connected to the setting of parking standard, including in relation to the ownership and use of vehicles amongst students at Purpose Built Student Accommodation (PBSA).
- 4.2.32 The research comprised 618 surveys at off-campus PBSA. The results show that 6% of students living in PBSA have a car with them at university, despite this not being permitted. Of these, 4% currently have one vehicle, and a further 2% had a vehicle previously during the academic year. 25% of students with a car reported parking 500m or more away from their accommodation.

Other Data and Best Practice Guidance

- 4.2.33 The approach to parking standards also draws on other key pieces of national evidence, research studies and data:
- A study commissioned by the Department for Transport (DfT) in 2008⁶ into the Use and Effectiveness of Maximum Parking Standards which highlighted several common themes including that parking is a very important demand management tool; developers see parking as important as they consider that it adds value to their asset; and that there is no evidence to suggest that maximum parking standards for non-residential developments have a significant negative impact on economic development within urban and rural areas; and
- The Chartered Institute of Highways and Transportation (CIHT) Residential Parking Guidance Note produced in 2012⁷ stated that "attempts to limit car ownership through limitations on parking provision have often failed where there are no controls in respect of on-street parking... there is clear evidence that limited provision within controlled areas (with less need to travel and greater sustainable travel options) is usually matched by lower ownership".

⁵ Crystal Market Research (2019)

⁶ DfT (2008)

⁷ CIHT (2012)

4.3 Vision and Objectives of Parking Standards

- 4.3.1 B&NES faces a wide range of challenges, some of which can be influenced and managed through good Parking Policy and guidance. The key challenges and factors influencing the vision for B&NES' Parking Standards are the climate emergency, the accessibility of a site, car ownership levels and car usage.
- 4.3.2 The Vision for the Parking Standards for B&NES is that they will be:

Parking Policy that contributes to creating better places, supports Climate Emergency commitments by enabling low carbon mobility, improving health and wellbeing and reduces the impact of vehicle usage and storage on our built and natural environment, whilst helping to address inequalities across the district.

- 4.3.3 A key consideration for this section of the SPD is to ensure that a suitable level of well-designed vehicle and cycle parking is provided in all new developments to deliver this Vision.
- 4.3.4 A balanced approach to delivering parking can help stimulate growth and meet resident and business needs, whilst enabling healthy lifestyles. This document aims to deliver effective parking solutions while taking account of other planning considerations.
- 4.3.5 In order to support delivery of the Vision, overarching objectives have been established to inform the development of parking standards. The objectives and respective outcomes that B&NES is seeking to achieve from Parking Policy and are illustrated in Figure 4.3.

Figure 4.3 Parking Standards Objectives

Creating Better Places

To promote good, efficient design of parking spaces integral to the layout of developments and compatible with other design considerations, to deliver good quality placemaking whilst ensuring parking provision remains balanced, mixed and flexible.

Prioritising Sustainable Transport

Levels of parking must be set to discourage car usage in favour of sustainable travel, further promoting health and wellbeing of residents and visitors, and only increased where opportunities to facilitate sustainable travel have been exhausted.

Car Ownership

Utilise parking policy to influence levels of car ownership where attractive sustainable alternatives can be made available and controls limiting overspill impacts are in place

Local Context

Ensure that parking levels for each development are suitable for the local context, recognising significant differences in accessibility and mobility options across the District.

Access for All

Ensure there is appropriate
access for all at all new
developments. This includes, but is
not restricted to, providing sufficient
and appropriate cycle and car parking
for disabled users and ensuring
internal and external environments
are safe, attractive, and
accessible for all users.

Enabling Cycling

Ensure that the level and design of cycle facilities, including adapted cycles, e-bike and other micromobility modes, enables large scale uptake.

50

4.4 Approach to Parking Standards

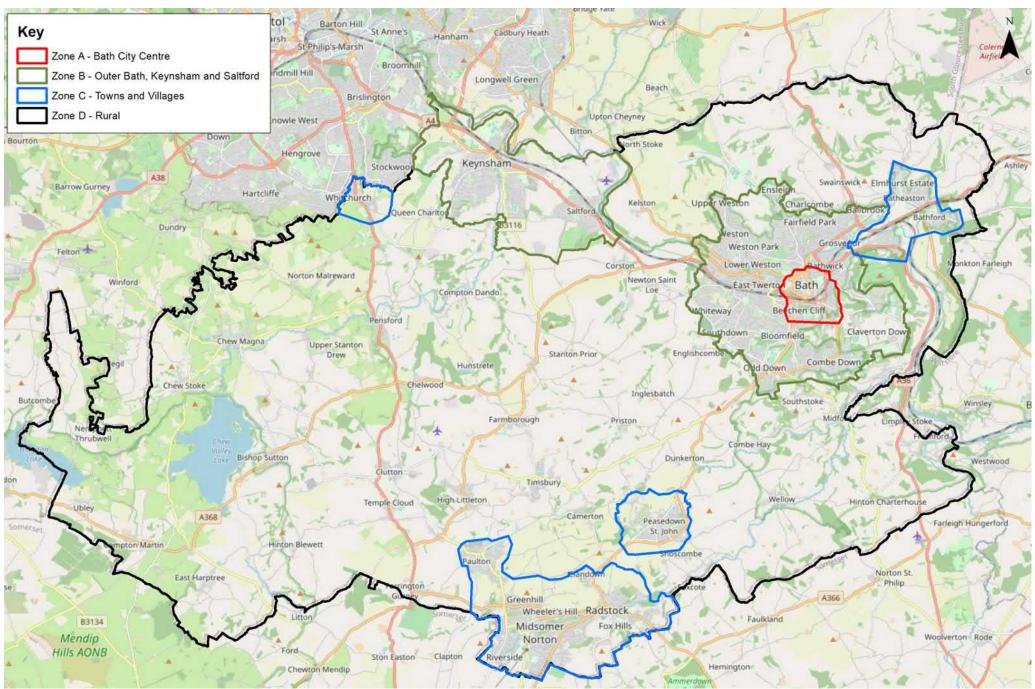
- 4.4.1 The approach to parking standards, as outlined in this section of the SPD, are an update to those previously adopted in Schedule 2 of the Placemaking Plan. The update has been to align more closely to an evolving policy framework, B&NES Council's Climate Emergency, air quality and placemaking aims, as well as the Parking Standards Vision and Objectives.
- 4.4.2 Key principles of the parking standards are summarised as follows:
- A zonal approach to setting parking standards has been developed from previous parking policy. This builds upon the zones previously used for setting parking standards by expanding to four zones. Keynsham and Saltford have been combined with the Bath Outer Zone and there is an additional category for rural towns and villages to differentiate them from the remainder of B&NES;
- Origin parking (i.e. residential development)
 has been set as maximum standards.
 The level has been set to achieve low car
 developments where conditions exist to do
 so, e.g. excellent accessibility, car clubs
 and Controlled Parking Zones (CPZ) to limit
 impact of overspill parking. Elsewhere, we
 are aiming to avoid over-provision, which can
 have detrimental effects on the quality of the
 places that we create;
- Destination parking (i.e. for non-residential development) has been retained as maximum standards. Maximum standards have been

- reviewed and adjusted in line with objectives to promote sustainable transport and avoid encouraging unnecessary car usage. Conversely, cycle parking requirements have been reviewed and increased where considered necessary to support increased uptake of cycling; and
- Applying an Accessibility Assessment, with the zonal approach as a starting point, supports a site specific analysis of appropriate parking levels. This enables variation to be applied on the basis of accessibility, providing greater flexibility to parking appropriate to the local context. Where an increase from maximum standards is proposed, evidence will be required that all reasonable sustainable travel alternatives have been exhausted and therefore a deviation from the standards is appropriate for their development.

4.5 Parking Standards Zones

- 4.5.1 The amount of parking to be provided is determined based on parking standards zones. As stated, these have been adjusted from the previous zones to apply greater granularity, reflecting the significant variation in accessibility and travel patterns across the District. There are four zones which cover the entire B&NES area:
- Zone A: Bath City Centre;
- Zone B: Outer Bath, Keynsham and Saltford;
- Zone C: Towns and Villages; and
- Zone D: Rural.
- 4.5.2 The parking standards zones are shown in Figure 4.4 and provided full scale at Appendix D.

Figure 4.4 Parking Standards Zones



4.5.3 The boundaries of the parking standard zones have been determined as a function of car ownership levels (from 2011 Census), accessibility, and the designated settlement boundaries. Parking standards reflect the gradation in accessibility and car ownership between Zones A to Zone D.

4.5.4 The parking zones broadly comprise the following distinguishing characteristics:

- Zone A - Bath City Centre

Typically, there is excellent accessibility with a wide range of walking, cycling and public transport options. Pedestrian and cycle movements are common for short local journeys owing to the dense urban form. There is a good network of footways, footpaths and pedestrianised areas. There is limited car parking within the curtilage of individual buildings, with the area having a commercial / retail focus. Buses and rail services are available for radial connections to the outer city areas, the rest of the District and further afield.

Zone B – Outer Bath, Keynsham and Saltford

A substantial built up area with local facilities typically within walking distance. A range of bus routes are available with frequent services and a range of destinations offering practical access to most but not all essential facilities. There is still a well-established network of footways and footpaths providing pedestrian access and some cycling routes and infrastructure available. There are some restrictions to on-street parking and other available off-street parking is limited.

- Zone C - Towns and Villages

Smaller settlements offering some local facilities within walking / cycling distances, but others will rely on vehicle use. Local facilities, including a local centre, would ideally be within 400m walking distance. There is typically at least one hourly bus service between town centres and other local centres, either for adjacent towns, or larger urban areas (including Bath City Centre and Bristol), but more frequent services may also be available. Footways and footpaths are likely to be within the extent of individual towns / villages. Pedestrian / cycle routes to

adjacent areas are likely to be sub-standard or not suitable for all users.

Zone D – Rural

Areas including infrequent, small villages or scattered individual buildings. Very few local facilities are available within walking or cycling distance, and often no local facilities within walking distance. There is a high level of reliance on private car ownership. Motorised travel is therefore required for most journeys. Public transport services are infrequent or beyond reasonable walking distance. There is no shortage of land for parking provision, but the adjacent highway system offers limited opportunities to park cars due to the highway conditions.

- 4.5.5 Previously, parking standards were determined from three zones comprising 'Bath City Centre', 'Outer Bath' and the 'Rest of the District'. The current standards have included Keynsham and Saltford within the 'Outer Bath' zone (B) as these areas are considered to have similar levels of car ownership and accessibility. An additional zone (Zone C Towns and villages) has been added between Zone B and Zone D, which includes additional settlements on the edge of Bath, Bristol and the Somer Valley (including Whitchurch Village, Midsomer Norton, Radstock, Peasedown St John, Paulton, Batheaston, Bathampton and Bathford).
- 4.5.6 When determining parking standards, developers must refer to the zone map to determine the zone applicable to the site and apply the relevant parking standards as provided in this SPD. Where development sites are positioned between parking zones B&NES will expect the parking standards to be derived based on the Zone with the lowest parking standard requirement (i.e. Zone A is lowest, Zone D is highest).
- 4.5.7 The application of zonal standards is the starting point in setting a parking level for a site, and individual site context and accessibility will need to be evaluated to account for variations within zones. In some situations, conditions will influence the level of local accessibility which justifies a variation from the maximum parking standards (an increase or decrease). In these cases, the Accessibility Assessment, as detailed in Section 4.11 / Appendix E of this SPD, should

be applied. The results of the assessment will inform where significant reductions from the maximum parking standards are appropriate. The Accessibility Assessment can also be used as evidence to demonstrate where it is appropriate for parking to be provided above maximum standards.

4.6 Origin Vehicle Parking Standards

- 4.6.1 For residential land uses, maximum parking standards have been provided for each zone based on the number of bedrooms provided at each dwelling. This is a common approach across nearby and comparable Planning Authorities. Evidence suggests that previous minimum standards, even with accessibility assessment discounts, risked overprovision of parking, which does not fit with the Parking Standards Vision and Objectives of this SPD.
- 4.6.2 The risk of under-provision, potentially resulting in over-spill parking and associated issues, is addressed within the Accessibility Assessment approach by ensuring that standards are appropriate to the local context. The standards allow for low car development but establishes conditions where that is appropriate to address the associated risks, including good accessibility, availability of car clubs, controls on overspill parking, and efficiency of parking management arrangements. This is set out in Section 4.11.
- 4.6.3 Owing to the available efficiencies in parking supply achieved, a reduction from the maximum standard is permissible where parking is to be unallocated to individual units for developments in Zone A and Zone B. Where applicable, a planning condition will be used to ensure residential car parking remains on an unallocated basis in perpetuity.
- 4.6.4 A study⁸ commissioned by B&NES in relation to the provision and use of garages in new residential developments suggests that 69% of residents do not use garages for parking. Therefore, to allow for a more accurate provision of parking based on local requirements, garages will no longer be permitted as part of parking supply for residential development. Clearly, garages may

- still be provided for residential developments, and can be used for the private parking of vehicles if desired by residents; however, it is important that the required level of parking does not rely on the use of garages so as to avoid overspill parking onto local roads. The exception to this is for sites within a CPZ (within 400m walking distance of CPZ boundary), where garages may be counted towards parking supply if desired. This is because risks of overspill parking are minimised by the presence of the CPZ.
- 4.6.5 A study⁹ commissioned by B&NES concludes that car ownership amongst HMO households are not materially higher or lower than car ownership amongst typical dwellings. Therefore, HMOs are treated the same as typical C3 Dwellings in terms of parking requirements, noting that those requirements are based on the number of bedrooms. HMOs refer to any dwelling containing three or more people from separate 'households' who share common facilities such as a kitchen and bathrooms. They are more colloquially known as a 'house share'. HMOs can be student accommodation, although where existing buildings are converted for student accommodation, the dwelling becomes a HMO (as opposed to PBSA) and the standards for HMOs apply.
- 4.6.6 PBSA has zero vehicle parking standards. Whilst there is evidence¹⁰ to suggest that around 6% of students bring a car to university, it is not considered in line with the Vision and Objectives of the parking standards to introduce a parking requirement for PBSA. All student accommodation developments will be required to contribute to the delivery of car club spaces and vehicles, proportionate to the number of bedrooms proposed. This will provide a reasonable alternative to car ownership for students, many of whom are unlikely to need a car on a daily basis due to good sustainable travel opportunities to and from University Campuses. Further details are provided in Section 4.10 of this SPD. PBSA developments will continue to be required to provide suitable arrangement for start and end of term student arrivals and departures.

⁸ Crystal Market Research (2019)

⁹ Crystal Market Research (2019)

¹⁰ Crystal Market Research (2019)

4.7 Destination Vehicle Parking Standards

4.7.1 For non-residential developments (destination land-uses) in Zone A, no parking provision is permitted owing to the highly accessible nature of the area by walking, cycling modes for local journeys and via public transport for journeys to the City Centre from elsewhere in the District. There is a need to continue to limit car usage in the City Centre in order to prioritise non-car modes of travel and work towards air quality and Climate Emergency objectives. Blue badge parking should be provided in accordance with the standards outlined in Section 4.10. Public car parks in the City Centre will be available for those who choose to travel by car. If developers consider that exceptional circumstances exist to require parking to be provided, a robust case will need to be presented and agreed with the Local Highway Authority (LHA).

4.7.2 For destination (non-residential) land uses within Zone D, no specific standards are set. Where relevant developments are proposed in Zone D, applicants should propose parking at an appropriate level commensurate with forecasted parking demand for the site so as to accommodate all necessary vehicles to prevent overspill parking onto the highway network, whilst also ensuring that travel by car is not enabled above the use of walking, cycling and public transport. Evidence to support the proposed level of parking will need to be included in any associated application documents such as a TA, Transport Statement (TS) or Travel Plan. It is recommended that applicants present and look to agree the level of parking with B&NES Highways Officers during pre-application consultation processes.

School Streets and School Environments

4.7.3 Streets around schools and other educational institutions are notoriously dominated by vehicles around pick up and drop off times, often creating an unsafe environment for pedestrians, cyclists and other road users as a result of traffic volumes and unscrupulous parking. Measures to ensure safety around school and nursery sites will be a key requirement for planning application submissions in terms of providing "safe and suitable access" as outlined in the NPPF. Measures should encourage sustainable travel

options for local journeys and prevent pupil / student pick-up or collection at the school gates. The ongoing nature of safety around school sites will be monitored and managed through School Travel Plans.



4.7.4 Where circumstances and the physical environment are appropriate, B&NES will consider the introduction of 'School Streets'. School Streets is a term associated with timelimited access restrictions to streets, with an aim to reduce traffic levels and resulting air pollution around schools. In particular, they are likely to be appropriate when developing a new school to encourage travel by active modes.

4.7.5 Additional off-site parking management is imperative for all school and nursery sites and will be sought as part of planning applications for new schools and existing schools which are proposed for expansion in pupil numbers. Off-site parking management is particularly important where the introduction of School Streets is not appropriate. As a minimum, 'school keep clear markings' are required immediately outside school access points, with guardrails positioned immediately outside school gates. On-site and off-site parking measures should also be considered as part of a wider Safer Routes to School package.



- 4.7.6 In all instances, reasonable endeavours should be made to identify, secure and promote Park & Stride locations as a mitigation measure for school parking management. Park & Stride is where a designated off-site location for parking is provided, from which pupils can safely be escorted to / from school. A fundamental aspect of transport policy on a national, regional and local level is to reduce vehicle usage for all types of journeys, including for educational purposes. Walking, cycling and public transport should be promoted above vehicle trips to / from school. However, it is acknowledged that in some cases vehicle trips will take place, and in these circumstances Park & Stride is an effective tool to limit traffic movements at the school gate.
- 4.7.7 It is important that reasonable measures are made to secure the longevity of Park & Stride sites for schools, however B&NES Council accepts that evidencing agreement in perpetuity is not always possible where Park & Stride is delivered through local agreements. In these instances, B&NES Council will accept demonstration that there is a reasonable prospect of Park & Stride arrangements being in place for the long term. It is also important that the route between the Park & Stride location and the school is suitable in terms of length and safety. The provision of Park & Stride, and the availability of routes between the Park & Stride Site and school can be supported through working with sustainable travel colleges within the education sector and local council.
- 4.7.8 Where Park & Stride cannot be provided, designated on-site facilities for the drop-off and collection of pupils may be required. On-site facilities will be considered on a case-by-case basis by B&NES, with the decision based on whether it is safer to have more vehicles at the gate and a well-designed formal facility to accommodate such movements, or fewer people driving to the gate but without dedicated provision. In all instances, highway safety for pupils will be the overriding factor. If no reasonable solution can be found, then there may be a case for re-evaluating the suitability of the proposed development.
- 4.7.9 When assessing site accessibility in relation school sites, consideration should include, but not be limited to:

- The adequate provision of footways needs to account for the influx of parents including pushchairs and scooters at pick up and drop off time. As such, consideration should be given to the ability for parents / guardians and children to circulate effectively and safely around the school gates at these times;
- Appropriate cycle provision, including the type and availability of cycle lanes, and whether the surrounding road environment is suitable for school aged children. For example, school aged children will be required to cycle on the footway, therefore the width and quality of the footway needs to be appropriate for children to cycle / scoot to school alongside parents / guardians; and
- Proximity to the closest bus stops and railway station (if applicable), and the suitability of pedestrian and cycle access to these points for school aged children.
- 4.7.10 It is acknowledged that the operation and requirements of mainstream primary and secondary schools differs to those of schools catering for pupils with Special Educational Needs (SEN). As such, SEN school parking will also be considered on a case-by-case basis, taking into consideration the high proportion of pupils being transported by taxis and minibuses, the potential limitations to active travel for disabled persons, and the higher proportion of peripatetic teachers visiting the school to support pupil development.

4.8 Cycle Parking Standards

4.8.1 The required number of cycle parking spaces for each type of land use / development are expressed as minimum standards to ensure sufficient levels are provided to support uptake. No justification is required for developers to propose cycle parking significantly in excess of minimum standards. Where developments propose significantly reduced levels of car parking, analysis will be needed to ensure that sufficient cycle parking is provided to meet travel demand.



4.8.2 Cycle parking should be provided in accordance with the design requirements outlined in Section 4.15. Long-stay cycle parking should be secure, covered and suitable for day-to-day use for residents, employees and staff. Short-stay cycle parking should be conveniently located, benefit from natural surveillance, and be suitable for visitors and short stay use.

4.9 Other Parking Standards

Blue Badge Parking Standards

- 4.9.1 The level of blue-badge parking to be provided at each development is typically calculated as a percentage of the total vehicle parking standards, with a minimum of one space across all developments and across all zones. Where reductions to parking provision are proposed through the Accessibility Assessment process outlined in Section 4.11, the discount cannot be applied to the level of blue-badge parking. Calculations for the provision of blue-badge parking should 'round up' to the nearest space.
- 4.9.2 There will be some land use development sites where a bespoke approach will be needed to meet specific needs, based on different user groups. In such instances, the provided standards should be considered a guide towards determining site-specific requirements and it is expected that the mobility needs will be considered and supported by the proposed development.
- 4.9.3 Blue badge parking should be provided in accordance with the principles outlined in Inclusive Mobility and BS 3800: Design of an accessible and inclusive built environment.



Motorcycle and Powered Two-Wheel Parking Standards

- 4.9.4 The level of motorcycle / powered two-wheel (PTW) parking to be provided at each development is calculated as a percentage of the total vehicle parking standards.
- 4.9.5 Where variation to the vehicle standards are proposed, as outlined in Section 4.11, any discounts can only be applied to the level of motorcycle / PTW parking with agreement from the LHA.

Electric Vehicle / Ultra-Low Emission Vehicle Parking Standards

4.9.6 The requirements for the provision of EVs and other ULEVs, including the recommended level of parking standards for different types of development, have been outlined in Section 5 of this SPD. Applicants should refer to this section for all matters in relation to the provision of EV / ULEV parking standards and technical requirements. Requirements for numbers of charge points are expressed as a proportion of the number of parking spaces provided, not as a proportion of the number of parking spaces required by standard.

Buses and Coaches

4.9.7 Where developments are anticipated to generate bus, coach or minibus movements, appropriate off-road parking and / or pick-up / drop off arrangements allowing passengers to safely alight should be provided along with suitable turning areas if applicable, avoiding the need to reverse wherever possible

Other Vehicles

4.9.8 For other types of vehicles, no specific parking standards are set. The level of parking for coaches, buses, mini-buses, Heavy Goods Vehicles or any other type of vehicle associated with accessing a development should be provided commensurate with the forecasted level of demand, with due consideration for adopted transport policy framework. Evidence to support the proposed level of parking should be included in any associated application documents such as a TA, TS or Travel Plan.

4.10 Parking Standards by Land Use

- 4.10.1 The following sections outline the amount of parking to be provided for a variety of development land uses. Parking standards are provided for vehicles, bicycles, bluebadge spaces, motorcycle / PTW. EV / ULEV requirements are provided in Section 5 of this SPD as a proportion of the total vehicle parking spaces provided.
- 4.10.2 The parking standards apply to all categories of development for which planning permission is required (new builds, conversions, change of use) within the B&NES Council area and apply for all appropriate land uses within the Use Classes under the Town & Country Planning (Use Classes) Order 1987 (as amended). Planning land uses were reclassified in September 2020. Some of the Use Classes cover a wide range of potential building purposes. In these instances, separate tables are provided for different development purposes and should be applied based on the content of the scheme being brought forwards. Whilst the amendments made to Use Classes (September 2020) has created broader categories, this is a well-established approach and has been used historically, particularly for the former D Class uses. Where there is doubt as to the appropriate parking standards applicable to

- a proposed development, it is recommended that discussions should be held with B&NES Highways Officers.
- 4.10.3 For Sui Generis land uses, or where parking standards are not specified for a particular type of development, applicants should propose parking at an appropriate level commensurate with the forecasted parking demand and in line with the parking standards Vision and Objectives. Evidence will be required to support the proposed level of parking and should be included in any associated application documents such as a Transport Assessment (TA) or TS. It is recommended that applicants present and look to agree the level of parking with B&NES Highways Officers during pre-application consultation processes.
- 4.10.4 The standards are presented in terms of spaces per square metre of Gross Floor Area (GFA) of buildings unless otherwise indicated. GFA is defined as the total area of a building, including the areas of any floors / storeys, as measured externally.
- 4.10.5 Where a building is in mixed use, the appropriate parking provision will be first calculated for each individual use. Following this, opportunities for trips to be linked or parking to be managed efficiently across the development must be analysed in order to avoid over-provision for the site as a whole. Where ancillary uses to the main development is proposed (for example office and store ancillary to a retail development), the appropriate parking provision for the whole development will be calculated based on the main use.
- 4.10.6 Where the parking standard calculations for a proposed development result in a decimal number (i.e. fractions of spaces) then the parking calculation should be rounded down to the next whole space, i.e. within the maximum standards.

B2 General Industrial

Use for industrial process other than one falling within class E(g) Offices. Excludes incineration purposes, chemical treatment or landfill or hazardous waste.

Zone	Vehicles	Bicycles Long Stay	Bicycles Short Stay	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 300sqm	1 space per 500sqm	Individual	
Zone B: Outer Bath, Keynsham and Saltford	1 space per 150sqm	1 space per 300sqm	1 space per 500sqm	bays for each disabled employee plus 2 spaces or 5% of total capacity,	2% of
Zone C: Towns and Villages	2 space per 100sqm	1 space per 300sqm	1 space per 500sqm		vehicle parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 300sqm	1 space per 500sqm	whichever is greater.	

- Industrial development should ensure suitable access, internal movement and parking for heavy vehicles is provided.
- Industrial development should ensure that safe and suitable access can be achieved for pedestrians and cyclists with consideration for the movement of heavy vehicles.

B8 Storage & Distribution

Not open to the public. This class include open air storage

Zone	Vehicles	Bicycles Long Stay	Bicycles Short Stay	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 400sqm	1 space per 1000sqm		
Zone B: Outer Bath, Keynsham and Saltford	2 spaces per 100sqm (for development <235sqm) 1 space per 250sqm (for	1 space per 400sqm	1 space per 1000sqm	Individual bays for each	
	development >235sqm)			disabled employee plus	2% of vehicle
Zone C: Towns and Villages	2 spaces per 100sqm (for units <235sqm) 1 space per 150sqm (for units >235sqm	1 space per 400sqm	1 space per 1000sqm	2 spaces or 5% of total capacity, whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 400sqm	1 space per 1000sqm		

- Industrial development should ensure suitable access, internal movement and parking for heavy vehicles is provided.
- Industrial development should ensure that safe and suitable access can be achieved for pedestrians and cyclists with consideration for the movement of heavy vehicles.

C1 Hotels

Hotels, boarding and guest houses where no significant element of care is provided (excludes hostels)

Zone	Vehicles	Bicycles Long Stay	Bicycles Short Stay	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 2 bedrooms	1 space per 20 bedrooms		
Zone B: Outer Bath, Keynsham and Saltford	1 space per 3 bedrooms	1 space per 2 bedrooms	1 space per 20 bedrooms	6% of capacity or 3 spaces,	2% of vehicle
Zone C: Towns and Villages	1 space per bedroom	1 space per 2 bedrooms	1 space per 20 bedrooms	whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 2 bedrooms	1 space per 20 bedrooms		

- For hotels in or near to Bath City Centre, arrangements can be made with public / private car park operators to secure parking.
- Suitable arrangements for the access, parking, loading and unloading of coaches, mini-buses and taxis / private hire vehicles should be provided.
- Short-stay spaces should be designed to provide secure cycle storage for visitors to use. This
 may be provided alongside staff parking where visitors are able to have access to the storage

C2 Hospitals

Part of land use 'C2: Residential Institutions' which includes residential care homes, hospitals, nursing homes, boarding schools, residential colleges and training centres.

Zone	Vehicles	Bicycles Long Stay	Bicycles Short Stay	Blue Badge Staff	Blue Badge Public	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 4 members of staff	1 space per 10 beds			
Zone B: Outer Bath, Keynsham and Saltford	1 space per 4 members of staff 1 space per 3 visitors	1 space per 4 members of staff	1 space per 10 beds	6% of capacity or	6% of capacity or	2% of vehicle
Zone C: Towns and Villages	1 space per 2 members of staff 1 space per 2 visitors	1 space per 4 members of staff	1 space per 10 beds	3 spaces, whichever is greater.	3 spaces, whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff	1 space per 10 beds			

- Layouts should provide priority access and parking for emergency vehicles.
- Consideration should be given as to the creation of CPZs within walking distances of the development site to reduce the impacts of on-street parking.
- New and expanded health facilities will be required to improve access by public transport, walking and cycling and provision of Travel Plans will be sought.
- Short-stay cycle spaces should be designed to provide secure cycle storage for visitor to use.
 This may be provided alongside staff parking where visitors are able to have access to the storage facility.
- Adequate provision for the dropping of and collection of patients / visitors to the development should be provided.

C2 Residential / Boarding Schools

Part of land use 'C2: Residential Institutions' which includes residential care homes, hospitals, nursing homes, boarding schools, residential colleges and training centres.

Zone	Vehicles	Bicycles Long Stay	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	1 space per 2 members of staff	1 space per 4 members of staff 1 space per 2.5 students		
Zone B: Outer Bath, Keynsham and Saltford	1 space per 2 members of staff	1 space per 4 members of staff 1 space per 2.5 students	6% of capacity or	2% of vehicle
Zone C: Towns and Villages	1 space per 2 members of staff	1 space per 4 members of staff 1 space per 2.5 students	3 spaces, whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff 1 space per 2.5 students		

Additional Requirements

- Suitable arrangements should be made for the drop-off and collection of students.

C2 Student Accommodation

Part of land use 'C2: Residential Institutions' which includes residential care homes, hospitals, nursing homes, boarding schools, residential colleges and training centres.

Zone	Vehicles	Bicycles Long Stay	Blue Badge Parking	Motorcycle / PTW
All Zones	0 spaces	1 space per 4 members of staff	5% of the number of	2% of the number of
All Zolles	о орасоо	1 space per 2.5 beds	beds	beds

All PBSA developments will be required to deliver / contribute towards the delivery of car club spaces and vehicles as follows :

Level of Development	B&NES Requirement		
1-99 beds	Financial contribution towards installation of car club spaces and vehicles is required. Funds will be pooled by B&NES and used to secure a car club space within 400m walking distance of PBSA. Contribution to be agreed with B&NES on a case by case basis and secured via a Section 106 agreement.		
100-199 beds	Developer to provide 1 car club space on the local highway network within 400m walking distance of the proposed development. This will be delivered via a TRO. The position of the car club space should seek to maximise catchment from the development and surrounding land uses.		
	Developer to contribute towards the operation of the car club vehicle. Level of contribution to be agreed with B&NES and the operator on a case-by-case basis.		
200-299 beds	Developer to provide 2 car club spaces (delivered via a TRO): One to be installed on the local highway network adjacent to the site; One to be installed within 400m walking distance of the proposed development. Position should seek to maximise catchment from the development and surrounding land uses. Developer to contribute towards the operation of car club		
	vehicles. Level of contribution to be agreed with B&NES and the operator on a case-by-case basis.		
300+ beds	Developer to provide 3 car club spaces (delivered via a TRO), with at least one to be provided adjacent or internal to the site and the remaining spaces to be provided so as to maximise uptake amongst students and other local users. Developer to contribute towards the operation of car club vehicles. Level of contribution to be agreed with B&NES and the operator on a case-by-case basis.		

The above thresholds are a guide and will require discussion and agreement with B&NES. There may be cases where there is existing unmet demand for car clubs in the local area, or conversely where existing car club spaces have spare capacity to accommodate new demand.

Additional Requirements

 Suitable arrangements should be made for the drop-off and collection of students within the development boundary, without affecting the amenity and operation of the local highway network.

C2 Convalescent, Residential Care and Nursing Homes

Part of land use 'C2: Residential Institutions' which includes residential care homes, hospitals, nursing homes, boarding schools, residential colleges and training centres.

Zone	Vehicles	Bicycles Long Stay	Bicycles Short Stay	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 4 members of staff	1 space per 10 beds	6% of capacity or 3 spaces, whichever is greater.	2% of vehicle parking spaces
Zone B: Outer Bath, Keynsham and Saltford	1 space per 2 members of staff 1 space per 6 beds	1 space per 4 members of staff	1 space per 10 beds		
Zone C: Towns and Villages	1 1 space per 2 members of staff 1 space per 6 beds	1 space per 4 members of staff	1 space per 10 beds		
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff	1 space per 10 beds		

Additional Requirements

- It is recognised that the list of development types above is not an exhaustive list of residential institutions within the C2 Category, and that there will be variations in levels of car ownership for residents across the category. For developments of other types of care, elderly or sheltered accommodation within the C2 category, (e.g. Extra-Care dwellings, Co-Living dwellings, Sheltered Accommodation, Retirement Homes etc.), the parking standards for staff are as presented above for both vehicles and bicycles. The parking requirement for residents and visitors should be provided at an appropriate level commensurate with the forecasted parking demand, in comparison with similar land uses, and in line with the parking standards Vision and Objectives. Evidence will be required to support the proposed level of parking and should be included in any associated application documents such as a TA or TS. It is recommended that applicants present and look to agree the level of parking with B&NES Highways Officers during pre-application consultation processes

C3 Dwelling Houses

This class is formed of three parts:

- C3(a) covers use by a single person or a family (a couple whether married or not, a person related to one another with members of the family of one of the couple to be treated as members of the family of the other), an employer and certain domestic employees (such as an au pair, nanny, nurse, governess, servant, chauffeur, gardener, secretary and personal assistant), a carer and the person receiving the care and a foster parent and foster child.
- C3(b) covers up to six people living together as a single household and receiving care e.g. supported housing schemes such as those for people with learning disabilities or mental health problems.
- C3(c) allows for groups of people (up to six) living together as a single household. This allows for those groupings that do not fall within the C4 HMO definition, but which fell within the previous C3 use class, to be provided for e.g. a small religious community may fall into this section as could a homeowner who is living with a lodger.

Zone	Vehicles	Bicycles Long Stay	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0.5 spaces per dwelling	1 2 spaces per one-bed dwelling2 spaces per two-bed dwelling3 spaces per three-bed dwelling4 spaces per four-bed dwelling or greater		
Zone B: Outer Bath, Keynsham and Saltford	space per one-bed dwelling 1.25 spaces per two-bed dwelling 1.5 spaces per three-bed dwelling and greater	1 2 spaces per one-bed dwelling2 spaces per two-bed dwelling3 spaces per three-bed dwelling4 spaces per four-bed dwelling or greater		
Zone C: Towns and Villages	1 space per one-bed dwelling 1.5 spaces per two-bed dwelling 2 spaces per three-bed dwelling 2 spaces per four-bed dwelling 3 spaces per five-bed dwelling and greater	1 2 spaces per one-bed dwelling 2 spaces per two-bed dwelling 3 spaces per three-bed dwelling 4 spaces per four-bed dwelling or greater	6% of capacity or 3 spaces, whichever is greater.	2% of vehicle parking spaces
Zone D: Rural	space per one-bed dwelling spaces per two-bed dwelling spaces per three-bed dwelling spaces per four-bed dwelling and greater	1 2 spaces per one-bed dwelling2 spaces per two-bed dwelling3 spaces per three-bed dwelling4 spaces per four-bed dwellingor greater		

Additional Requirements

Vehicle parking for residential development can be allocated to specific dwellings / units or provided communally. Where communal parking is provided for development in Zone A and Zone B, a reduction in the number of parking spaces can be applied to account for the efficiencies available. No visitor parking spaces are required. Where parking is allocated to specific dwelling, additional visitor spaces should be provided. The required approach is set out below:

Allocated Parking Spaces		Additional Provision of 0.2 spaces per dwelling for visitors.
Unallocated Parking Spaces Zone A		Reduction of up to 15% from standards.
Zone B		Reduction of up to 15% from standards.
	Zone C	No reduction from standards.
	Zone D	No reduction from standards.

Notes: 1. Reduction does not apply to blue-badge parking requirement.

Where reductions are applied for unallocated spaces, a planning condition will be used to ensure that vehicle parking remains on an unallocated basis in perpetuity.

Also:

- Garages will not be counted as parking spaces for the purposes of deriving parking standards, with the exception of locations within CPZ coverage (within 400m walking distance of CPZ boundary) where garages may be promoted as parking spaces if desired.
- Cycle parking should be provided within a dedicated bicycle storage facility within the curtilage of proposed dwellings / units. Bicycle storage is permissible within units, sheds, outbuildings or garages but only where these are large enough to accommodate the cycle parking standard. Dimensions should be shown on any plans or drawings submitted to inform planning applications. Cycle parking proposals should be in accordance with the 'Design Guidance' included at Section 4.15.
- For developments where there is a need for regular staffing (e.g. proposals for C3(b)), then
 the staff parking requirements should be implemented as set out under 'C2 Convalescent,
 Residential Care and Nursing Homes' for both vehicle and bicycle parking.

C4 Houses in Multiple Occupation (HMO)

Small shared houses occupied by between three and six unrelated individuals, as their only or main residence, who share basic amenities such as a kitchen or bathroom.

Parking standards as per 'C3 Dwelling houses'.

- Consideration should be given as to the creation of CPZs to reduce the impacts of on-street parking.
- Consideration should be given to the proximity / provision of car clubs.

E(a) / F2(a) Non-Food Retail

E(a) Display or retail sale of goods, other than hot food.

F2(a) Shops (mostly) selling essential goods, including food, where the shop's premises do not exceed 280sqm.

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 150sqm		
	2 spaces for units up to 100sqm			
Zone B: Outer Bath, Keynsham and Saltford	3 spaces for units up to 200sqm			
	4 spaces for units up to 300sqm	1 space per 150sqm	6% of capacity or	
	5 spaces for units up to 500sqm			2% of vehicle
	Plus 2.5 spaces per 100sqm above 500sqm			
	2 spaces for units up to 100sqm		3 spaces, whichever	parking
	3 spaces for units up to 200sqm		is greater.	spaces
Zone C: Towns and Villages	4 spaces for units up to 300sqm 1 space per 150sqm			
	5 spaces for units up to 500sqm			
	Plus 5 spaces per 100sqm above 500sqm			
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 150sqm		

- Suitable arrangements should be provided for the access and parking of vehicles for the delivery of goods.
- Employee and customer needs should be accounted for in the design and location of cycle parking.

E(a) Food Retail

E(a) Display or retail sale of goods, other than hot food.

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 150sqm		
Zone B: Outer Bath, Keynsham and Saltford	4 spaces per 100sqm	1 space per 150sqm	6% of capacity or 3 spaces,	2% of vehicle
Zone C: Towns and Villages	7 spaces per 100sqm	1 space per 150sqm	whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 150sqm		

- Suitable arrangements should be provided for the access and parking of vehicles for the delivery of goods.
- Employee and customer needs should be accounted for in the design and location of cycle parking.

E(b) Cafes and Restaurants

Sale of food and drink for consumption (mostly) on the premises

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 100sqm		
	2 spaces for units up to 100sqm			
Zone B: Outer Bath, Keynsham and Saltford	3 spaces for units up to 200sqm			
	4 spaces for units up to 300sqm 1 space per 100sqm 5 spaces for units up to 500sqm		6% of	2% of
	2 spaces for units up to 100sqm		3 spaces, whichever	parking
	3 spaces for units up to 200sqm		is greater.	spaces
Zone C: Towns and Villages	4 spaces for units up to 300sqm	1 space per 100sqm		
	5 spaces for units up to 500sqm			
	Plus 5 spaces per 100sqm above 500sqm			
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 100sqm		

- Suitable arrangements should be provided for the access and parking of vehicles for the delivery of goods.
- Employee and customer needs should be accounted for in the design and location of cycle parking.

E(c) Financial and Professional Services

Provision of:

- E(c)(i) Financial services;
- E(c)(ii) Professional services (other than health or medical services); or
- E(c)(iii) Other appropriate services in a commercial, business or service locality.

Zone	Vehicles	Bicycles Long Stay	Bicycles Short Stay	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 50sqm	1 space per 500sqm		
Zone B: Outer Bath, Keynsham and Saltford	1 space per 100sqm (for staff) 1 space per 200sqm (for visitors)	1 space per 50sqm	1 space per 500sqm	6% of capacity or 3 spaces,	2% of vehicle
Zone C: Towns and Villages	2 spaces per 100sqm (for staff) 1 space per 200sqm (for visitors)	1 space per 100sqm	1 space per 500sqm	whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 100sqm	1 space per 500sqm		

E(d) Indoor Sport and Fitness

Indoor sport, recreation or fitness (not involving motorised vehicles or firearms).

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW	
Zone A: Bath City Centre	0 spaces	10 spaces plus 10% of vehicle spaces			
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	6% of capacity or 3 spaces, whichever is greater.	vehicle spaces 6% of capacity	2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces		parking spaces	
Zone D: Rural	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces			

E(e) Medical and Health Services

Provision of medical or health services (except the use of premises attached to the residence of the consultant or practitioner).

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 4 members of staff		
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	1 space per 4 members of staff	6% of capacity or 3 spaces, whichever is greater.	2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		

E(f) Nursery, Creche and Day Centres

Creche, day nursery or day centre (not including a residential use).

Refer to Section 4.7 for further guidance on the provision of parking in and around education development.

A blue badge parking space should be provided for each disabled member of staff plus 2 spaces or 5% of total on-site capacity, whichever is greater.

The requirements for Nursery, Creche and Day Centre Development are as per that for Primary Schools.

E(g) Offices, Light Industrial, Research & Development, Laboratory, Studios

Uses which can be carried out in a residential area without detriment to its amenity:

- E(g)(i) Offices to carry out any operational or administrative functions;
- E(g)(ii) Research and development of products or processes; or
- E(g)(iii) Industrial processes.

Zone	Vehicles	Bicycles Long Stay	Bicycles Short Stay	Blue Badge Parking	Motorcycle / PTW	
Zone A: Bath City Centre	0 spaces	2 spaces per 100sqm	1 space per 500sqm	Individual		
Zone B: Outer Bath, Keynsham and Saltford	1 space per 100sqm	2 spaces per 100sqm	1 space per 500sqm	bays for each disabled employee plus	disabled employee plus	2% of vehicle
Zone C: Towns and Villages	2 spaces per 100sqm	1 space per 100swm	1 space per 1000sqm	2 spaces or 5% of total capacity, whichever is	parking spaces	
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 100swm	1 space per 1000sqm	greater.		

- Facilities such as changing rooms, lockers and showers should be provided.
- The level of cycle parking should be kept under ongoing review to ensure that supply always exceeds demand. This should be conducted through the Travel Plan monitoring process.

F1(a) Primary Schools

Provision of Education.

A blue badge parking space should be provided for each disabled member of staff plus 2 spaces or 5% of total on-site capacity, whichever is greater.

Refer to Section 4.7 for further guidance on the provision of parking in and around education development.

F1(a) Secondary Schools

Provision of Education.

A blue badge parking space should be provided for each disabled member of staff plus 2 spaces or 5% of total on-site capacity, whichever is greater.

Refer to Section 4.7 for further guidance on the provision of parking in and around education development.

F1(a) Higher / Further Education

Provision of Education. Higher and further education land uses, whether new sites or changes to existing estates, are likely to have bespoke operational characteristics which are not suited to the application of specific parking standards. Applicants will be expected to propose and agree suitable parking provision based on evidence and in line with the parking standards Vision and Objectives. This will include demonstrating that robust measures have been put in place to reduce the demand for parking.

A blue badge parking space should be provided for each disabled member of staff plus 2 spaces or 5% of total on-site capacity, whichever is greater.

F1(a) Special Educational Needs (SEN) Schools

Provision of Education.

All parking standards are to be discussed with the LHA and will need to be based on the specific requirements of the facility and its users. Refer to Section 4.7 for further guidance on the provision of parking in and around school sites.

- Suitable facilities should be provided for the drop-off and collection of pupils. SEN Schools are likely to have high proportions of students being dropped off collected compared to other types of schooling.
- A blue badge parking space should be provided for each disabled member of staff plus 2 spaces or 5% of total on-site capacity, whichever is greater.

F1(bce) Art Gallery, Museums, Exhibition Halls

Display of works of art (otherwise than for sale or hire). Museums. Public halls or exhibition halls.

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW	
Zone A: Bath City Centre	0 spaces	1 space per 4 members of staff	6% of capacity or 3 spaces, whichever is greater.		
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	1 space per 4 members of staff			2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		parking spaces	
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff			

F1(d) Library

Public libraries or public reading rooms.

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW	
Zone A: Bath City Centre	0 spaces	1 space per 4 members of staff	6% of capacity or 3 spaces, whichever is greater.		
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	1 space per 4 members of staff			2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		parking spaces	
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff			

F1(f) Public Worship

Public worship or religious instruction (or in connection with such use).

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 4 members of staff	6% of capacity or 3 spaces, whichever is greater.	
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		

F1(g) Law Courts

Law Courts.

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	1 space per 4 members of staff	6% of capacity or 3 spaces, whichever is greater.	
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	1 space per 4 members of staff		

F2(b) Halls or Meeting Places

Halls or meeting places for the principal use of the local community.

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	10 spaces plus 10% of vehicle spaces		
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	6% of capacity or 3 spaces,	2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	_	

F2(c) Outdoor Sport / Recreation

Areas or places for outdoor sport or recreation (not involving motorised vehicles or firearms).

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	10 spaces plus 10% of vehicle spaces		
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	6% of capacity or 3 spaces,	2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	<u>-</u>	

F2(d) Swimming Pools and Ice Skating Rinks

Indoor or outdoor swimming pools or skating rinks.

Zone	Vehicles	Bicycles	Blue Badge Parking	Motorcycle / PTW
Zone A: Bath City Centre	0 spaces	10 spaces plus 10% of vehicle spaces		
Zone B: Outer Bath, Keynsham and Saltford	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	6% of capacity or 3 spaces,	2% of vehicle
Zone C: Towns and Villages	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces	whichever is greater.	parking spaces
Zone D: Rural	Evidenced approach to be agreed with LHA	10 spaces plus 10% of vehicle spaces		

4.11 Accessibility Assessment

- 4.11.1 An Accessibility Assessment tool has been developed to feed into the process of determining parking provision for new development. This comprises a series of questions to assess the accessibility of a proposed site, in terms of walking, cycling, public transport and additional considerations.
- 4.11.2 The Accessibility Assessment is designed to be completed alongside a full TA / TS, which should include a more detailed analysis of the site's accessibility in line with best practice. For any TA / TS that is completed as part of a planning application, the Accessibility Assessment is a mandatory requirement.
- 4.11.3 Car parking standards are set at maximum levels. Therefore, theoretically parking standards below maximum limits would be considered acceptable. However, potential issues with over-spill parking can arise where there is significant under-supply of parking inappropriate to the context. This level will vary on a site by site basis, but for the purpose of this SPD, a significant reduction in parking levels is defined as >15% below the maximum

levels as a starting point for discussions with the LHA. The Accessibility Assessment provides a guide as to the appropriateness of a significant reduction in parking provision from the parking standards as set out in Appendix E.

- 4.11.4 No reduction should be applied to disabled parking provision through the Accessibility Assessment.
- 4.11.5 The Accessibility Assessment should be completed with regards to the proposed development and its surrounding local area. It should take into consideration any proposed improvements to accessibility to be delivered by the proposed development, for example new footway and cycleway provision, car clubs, Residents Parking Zones, and proposed bus route amendments. These measures will then become a condition of planning consent if they are a material consideration in the determination of the appropriate level of parking for the development.

Completing the Accessibility Assessment

4.11.6 Figure 4.5 sets out the process for establishing parking levels for a development, including the role of the Accessibility Assessment.

Figure 4.5 Accessibility Assessment Process

STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE 5
Identify basic parking standard for the land use based on the quantum of development	Complete Accessibility Assessment questionnaire (included at Appendix E).	Calculate the accessibility score as a percentage for: 1. Active Travel (walking and cycling sections); 2. Public Transport and Additional Considerations (bus, rail and additional considerations sections).	Identify appropriate potential reduction in parking provision based on the questionnaire scores, using the accessibility matrix.	Discussions with the LHA on parking provision and management strategy.

- 4.11.7 The Accessibility Assessment is contained at Appendix E, with a table provided at each stage for the Applicant to complete. A guide is provided at Table 1 of the Accessibility Assessment that is designed to provide some examples to inform scoring of the proposed development in terms of accessibility (Stage 2).
- 4.11.8 Where a proposed mixed-use development comprises both origin and destination parking (i.e. residential and non-residential elements), a separate Accessibility Assessment should be completed for each and any proposed reductions in parking should be considered separately for origin and destination parking.

4.11.9 Where a mixed use development contains multiple destination land uses, e.g. employment, retail and leisure, parking requirements will need to be calculated separately in the first instance. The potential for linked trips, including with existing off-site uses such as town centres, will need to be accounted for, as well as potential for management arrangements to deliver efficiencies, in order to set a parking level appropriate for the development as a whole. For example, different land uses may have different temporal parking demand profiles and thus sharing parking may reduce total supply needed.

Freiburg

Location: Freiburg, Germany

Freiburg, Germany has seen a decrease in car use by 7% in the previous 16 years, this despite a growing economy and population. This is due to an innovative land use policy that prevents car dependence and actively encourages car-free development.

One such car-free district of the city, Vauban, is a compact, mixed use development. It was built alongside a light rail route that serves the City Centre. There is only car parking at the edge of the development which residents are required to pay to use, whilst only allowed onto the development to drop-off or picking up.

Making other modes more attractive has achieved its goal, 70% of households in the district do not own a car and 57% of those who moved to the area sold their car in the process of moving.

Applying a Significant Reduction to Parking

- 4.11.10 In order to encourage the use of walking, cycling and public transport and reduce carbon emissions, the assessment facilitates a flexible approach and a reduction of prescribed parking standards may be justified in areas with high connectivity and good public transport provision, with a score of 100% reduction allowing for a 'car free' development, where there is clear evidence that this would be justified .
- 4.11.11 'Car free' development should continue to provide access, parking and mobility for disabled persons. Any reductions in parking provision apply to standard car parking spaces only. The provision of disabled parking spaces should be calculated based on the parking standards set out in Section 4.10 of this, prior to any discounts being applied.
- 4.11.12 Similarly, the parking requirement for cycle, scooter and PTWs should be based on

- the development quantum or car parking prior to any reductions being applied to the maximum car parking provision. Where significantly reduced levels of car parking are proposed, sufficient provision of cycle parking will be required to ensure that forecast mode shift to cycling can be accommodated.
- 4.11.13 Ultra-Low Emissions Vehicle (ULEV) parking requirements, i.e. number and type of charge points, are determined as a proportion of levels of parking provided. This is because ULEVs are still vehicles, with many of the disbenefits of vehicle usage, and B&NES' intends to use ULEV policy to support change in fleet composition in the context of aiming to reduce car usage overall. Allowing higher levels of parking on the basis of providing charge points would be counter to that aim and create a perverse incentive to drive rather than travel more sustainably.

4.11.14 Should a significant car parking reduction be proposed by the developer, it is required to demonstrate how on-street parking will be managed within the vicinity of the site, to ensure that parking pressure is not simply offset to another area. Should an increase in parking levels be proposed above the maximum standards, the Applicant will be required to provide evidence to illustrate that all sustainable travel alternatives have been exhausted and therefore a deviation from the standards is appropriate for their development.

4.11.15 It should be noted that the application of the Accessibility Assessment represents an appropriate starting point for discussion of parking levels. In the majority of cases, this calculation will be accepted as the appropriate level of parking for any given site. However, there may be local situations where more detailed analysis, such as parking stress surveys and parking accumulation assessments, will be required to agree levels of parking.

4.12 Other Parking Considerations

Car Clubs, Car Sharing and Shared Parking



4.12.1 The concept of car clubs and car share platforms, as part of the wider shared mobility concept, has become increasingly popular, with car club users increasing across the UK by 765% between 2007 and 2017¹¹.

4.12.2 A car club is a membership scheme which allows members to have access to a communal vehicle, booked on an hourly basis for occasional short-term use. Access to the vehicle is managed through a booking system where members book a specific time when they want to use the vehicle.

Membership of a car club removes a whole range of sunk costs associated with a vehicle, including the vehicle purchase, parking permits, Vehicle Excise Duty, MOT, maintenance and insurance. Ultimately, this makes car club membership a more financially attractive way of paying for access to a car than traditional ownership or long-term lease models, for those with lower annual mileage.

4.12.3 It is also recognised that joining a car club is associated with a reduction in annual car mileage, with the average change in annual household car mileage (for all cars in the household and car club cars) reported by longer-term members after joining was a decrease of 793 miles¹². Furthermore, the survey shows a reduction in car travel by new members along with the travel behaviours of all car club members using sustainable travel modes more frequently.

4.12.4 Car club schemes can reduce demand for car parking in residential development by reducing car ownership. They can also provide opportunities to employers in terms of business travel, particularly in comparison with pool or lease cars, amongst other benefits. A 2016 study by CoMo concluded that 'car clubs are helping to fulfil local authority policies on congestion / traffic, air quality and carbon reduction by reducing car dependence and car ownership', with the Annual Survey Car Club 2017/18 stating car ownership amongst new members falling after joining, with longer term members continuing to own fewer cars, and as such, they are strongly supported in principle.

4.12.5 Car clubs function efficiently by complementing other sustainable travel modes, rather than acting as a standalone solution. In the right location car clubs can be used alongside accessibility measures such as provision for active travel and support for public transport measures (e.g. annualised bus passes) in order to enable lower car ownership and reduce car usage. The provision and utilisation of car clubs can allow development to occur in areas with high parking pressure by supporting lower car parking ratios, enabling high density development in accessible locations and creating better places.

4.12.6 As set out in within the parking standards, all student accommodation developments will be required to deliver or contribute to the provision of a car club, including the delivery of a car club

¹¹ Steer Davies Gleave (2017)

¹² Steer (2018)

space on the local highway network (generally within 400m of the development) which should be secured via the Traffic Regulation Order (TRO) process. Contribution is also required for the delivery of car club vehicles. Additionally, availability of car club spaces is a criteria within the Accessibility Assessment which can enable reduced parking levels to be provided.

- 4.12.7 B&NES welcomes the provision of car club spaces as part of a development. Car clubs can be viable for both origin and destination parking locations, although the level of development required to provide a viable car club will change depending on the type of development and surrounding land uses.
- 4.12.8 B&NES considers the provision of 100 dwellings as a threshold for providing a viable car club space, with additional spaces viable for each 100 dwellings thereafter. Where car club spaces are to be provided, there will be material time and financial costs associated with the installation of a TRO on the local highway network (to allocate road space for car club only vehicles) which will need to be provided by the developer or otherwise agreed with B&NES. This is to ensure that a financially viable car club service from the outset, without risk to the operator which may result in the car club not being available in the long term.
- 4.12.9 The NPPF states that local authorities are encouraged to provide EV / ULEV charging infrastructure in new developments. Therefore, car club provision is required to include the associated charging facilities essential for electric car club vehicles. Further information in relation to electric charging infrastructure requirements can be found in Section 5 of this SPD.
- 4.12.10 Car clubs include the provision of EVs, such as those in the Co-Wheels car club in Bristol, which currently has a fleet of 11 EVs and the use of 24 charging points around the City, B&NES supports the use of such car clubs, providing a greener travel choice when car use is required.
- 4.12.11 The provision of car club spaces should be based on anticipated mode shares as quantified in the TA and Travel Plan for the proposed development. A number of car clubs are currently operating in the West of England, including Co-wheels Car Club, Enterprise Car Club and Zipcar Car Club. It is to be noted that a TRO will be required for any on-street car club bays.

Loading and Servicing

- 4.12.12 Full consideration should be made at development sites for associated operational vehicle requirements including emergency vehicle access, servicing, maintenance, loading and deliveries. Insufficient provision for operational vehicles can have significant adverse effects on safety and congestion at the site and on surrounding roads.
- 4.12.13 The operational requirements will be unique for each site, and as such parking provision should be considered and justified on a case by case basis. It should be aimed at minimising the impact of any operational activity on the site and surrounding areas, including on the safety of vulnerable road users.
- 4.12.14 Operational vehicle bays should be provided on site to cater for the maximum number of vehicles anticipated on site at any one time, whilst respecting the user hierarchy, being sympathetic to the site design and providing clear signage. In the first instance, management measures should be investigated with the aim of minimising the number of vehicles on site at any one time, and therefore the number of bays required.
- 4.12.15 Where no operational vehicle bays are proposed for a site, the applicant must demonstrate plans and procedures for deliveries and collections, as well as any maintenance vehicles.



Controlled Parking Zones

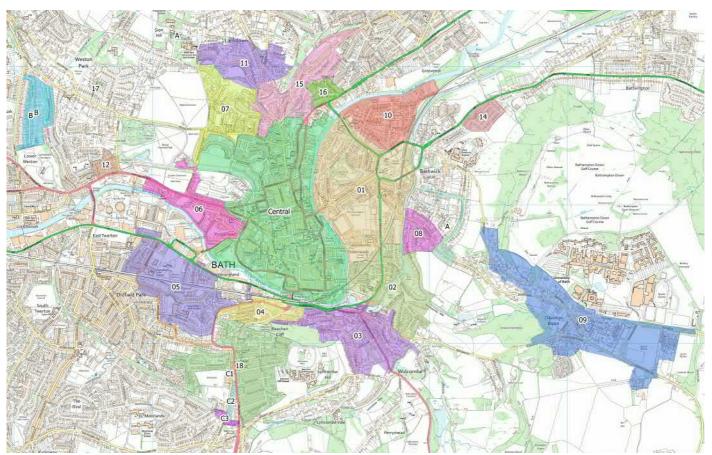
4.12.16 CPZs are localised areas where parking restrictions or regulations have been introduced to address parking issues. A number of areas operate with CPZs in B&NES. The main aims of these CPZs are to:

- Maintain or improve effective and safe traffic flow including unrestricted emergency vehicle access, taking into account the needs of local residents, shops and business;
- Actively support the needs of those with disabilities to ensure fair access to facilities; and
- Actively discourage indiscriminate parking that causes obstruction to other motorists, public transport, pedestrians, cyclists and people with disabilities.

4.12.17 Resident Parking Zones (RPZs) are a form of CPZ and are active on various streets in Bath and also on three streets in Keynsham. Residents on streets that have an active RPZ are required to apply for a parking permit at a cost for themselves and visitors to park within designated residential parking bays within their zone. In terms of visitor permits, eligible residents in Bath zones (excluding the Central Zone) and Keynsham streets are entitled to a maximum of 1,000 visitor hours or where applicable 100 x one day permits. Entitlement to visitor hours are per property per annum, not per eligible resident. Use of permits outside of their allocated zone may result in a Penalty Charge Notice.

4.12.18 In April 2019, a significant reduction in permit cost was introduced for zero emission vehicles. This is applicable to residents, trade and business parking permits. Figure 4.6 illustrates the current RPZs in Bath.





4.13 Parking Design Requirements

- 4.13.1 When undertaken correctly, parking design and layout can have a positive impact on the safety for all road users, access for emergency services, the quality of the environment, the character and appearance of development in addition to improving health and wellbeing and reducing inequalities. The material used to incorporate parking into the public realm can be used to enhance the street scene along with other design aspects such as landscaping and planting to create good quality placemaking as well as opportunities for biodiversity.
- 4.13.2 This section sets out the requirements for the location, layout and design of parking, including the minimum space / dimension requirements. This section includes design requirements for the following:
- Car parking (including Disabled / Blue Badge parking and parking for people with young children);
- Cycle parking;
- Micro scooters;
- PTW;
- EV / ULEV charging; and
- Commercial vehicle parking.

Parking Location and Setting

4.13.3 Careful consideration should be given as to the location and setting of parking for vehicles and bicycles. Parking for both vehicles and bicycles should be located so as not to adversely affect movement or accessibility for pedestrians and cyclists, including accessibility for disabled persons. All parking layouts should support mobility for all users, ensuring that routes between parking areas and building entrances are accessible for all in accordance with the principles outlined in Inclusive Mobility and BS 3800 Design of an accessible and inclusive built environment. This should be balanced against limiting the opportunities for vehicle parking to dominate an area's sense of place. Cycle parking should always be easily accessible and provided in a location with adequate pedestrian infrastructure to facilitate safe transition to the building(s) it serves.

- 4.13.4 On-street parking should be avoided wherever possible. On-street parking results in road space being used for the storage of private property on public roads. The space used for on-street parking could be better used to provide sustainable travel infrastructure or otherwise contribute to the placemaking of an area, for example through the provision of GI. On-street car parking associated with development will only be accepted where the layout of the street has been specifically designed to incorporate on street parking so that parking does not interfere with the operation of the carriageway for all road users. On-street car-parking spaces should be clearly marked through the use of road markings or changes of surfacing material.
- 4.13.5 All parking should be provided in areas with good natural surveillance and lighting to increase both the security of parking areas and also the perception of safety. This is particularly important for cycle parking, where the perceived safety and security of cycle parking is a key consideration in the uptake of cycling.
- 4.13.6 Cycle parking should be safe, secure and convenient to encourage uptake. Formal public spaces are ideal locations for visitor cycle parking because they are accessible, overlooked and well lit. It is essential that cycle parking is provided in an appropriate location. The co-location of cycle parking and refuse storage within the development will not be acceptable. This can often reduce the accessibility of cycle parking where refuse storage is not properly maintained and managed. Furthermore, the attractiveness and quality of the cycle parking can disincentivise cycle travel.

Footway Parking



4.13.7 Within B&NES, many streets within Bath and the surrounding towns and village were designed and created without consideration for modern parking requirements. At some locations, especially in residential areas with narrow roads and no driveways, footways are the only place to park without obstructing the carriageway. However, this leads to a loss of footway amenity and in some situations (e.g. for disabled persons or persons with pushchairs) can result in pedestrians being forced onto the carriageway and into the flow of traffic. This is, at best, an inconvenience or, at worst, a considerable highway danger. Damage to pavements and verges from parking can result in trip hazards and maintenance issues, as well as result in personal injury claims which are a cost to B&NES Council.

4.13.8 Across England (except for Greater London), parking on pavements and verges is permitted unless specifically prohibited by a local authority (either street-by-street or zonally); the prohibition requiring a formal TRO. There are some cases within B&NES where this has been formalised through the demarcation of 'wheel up' spaces. However, there are many cases across the district where this is informal and presents a considerable issue.

4.13.9 The UK Government has recently consulted¹³ on options to provide further guidance and tools to Local Authorities to tackle footway parking where it is an identified issue. The options considered include:

 Option 1 - streamlining and improvement to the existing process whereby Local Authorities can prohibit footway parking via TRO under the Traffic Management Act 2004;

- Option 2 allow Local Authorities with Civil Parking Enforcement powers to enforce against "unnecessary obstruction of the pavement" for example by issuing Penalty / Fixed Charge Notices to vehicles; and
- Option 3 introduce a national prohibition on pavement parking, except for locations where this is permitted by the Local Authority. B&NES Council intends to apply reasonable recommendations and directives as outlined by future government guidance and support the reduction of pavement parking across the district.

4.14 Car Parking Design Requirements

- 4.14.1 Car parking spaces must meet the minimum dimensions set out within this section to be considered as a parking space. These minimum dimensions are deemed to provide practical and effective access for users, whilst ensuring adverse effects on other users such as passing pedestrians is minimised.
- 4.14.2 For all car parking provision, it should be demonstrated that parking spaces:
- Meet the minimum dimensions required based on their configuration;
- Provide adequate manoeuvring space for vehicles using Swept Path Analysis (SPA), including reasonable allowance for driver error. For standard car parking, tracking should be demonstrated of a large car with minimum dimensions of 1.80m x 5.01m and at a minimum speed of 5km/h for forward movements and 2.5km/h for reversing movements; and
- Comply with 'Traffic Signs Regulations and General Directions (2016)'.
- 4.14.3 The requirements for different parking bay configurations are set out in the following sections:

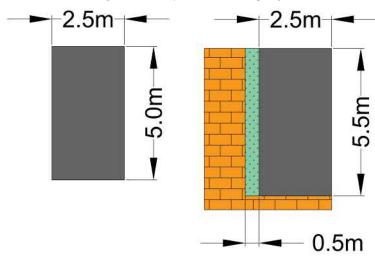
¹³ Department for Transport (2020) Pavement parking: options for change.

Perpendicular and Parallel Bays

Stand Alone and Perpendicular Parking Bays

Minimum Width	Minimum Length	Minimum Aisle Width behind spaces (if applicable)
2.5m (can be reduced to 2.4m for long stay parking if necessary)	5.0m (increasing to 5.5m if the end of the vehicle abuts a solid feature e.g. wall or fence)	6.0m

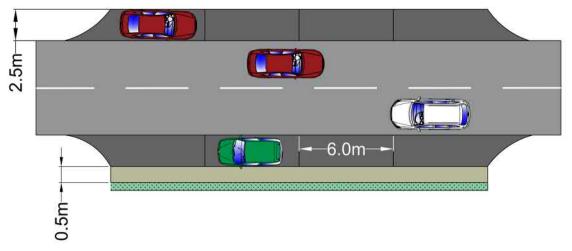
Figure 4.7 Perpendicular Parking Bays



Parallel Parking Bays

Minimum Width	Minimum Length	Minimum Aisle Width behind spaces (if applicable)
2.5m	6.0m	N/A

Figure 4.8 Parallel Parking Bays



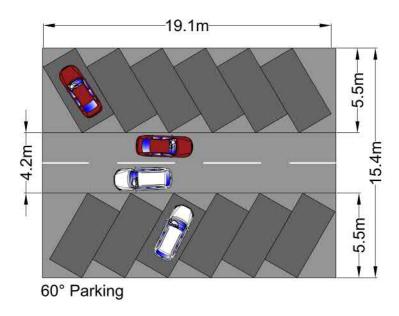
- Where bays are located adjacent to a vertical structure (e.g. a wall or dense vegetation), or a footway, a minimum of 0.5m clearance should be provided (as shown in Figure 4.7). This can be provided as a dedicated strip of land, with hatching, or included within the space dimension as required;
- Where parking bays abut a building with windows at ground level, a 0.5m landscape buffer should be provided at a low level to retain visibility through the window;
- Aisle width may be reduced if parking bay widths are increased. Where proposed, SPA is required to demonstrate sufficient manoeuvring space is provided;
- Additional bay width and length should be considered for areas with a high turnover of parking.
 This is additional to the requirements for disabled parking spaces;
- Where a large number of parking bays are provided together, it is expected that suitable landscaping should be provided to break up these spaces and reduce the visual impact. Sections of four to five spaces will typically be appropriate, depending on the character and design context. Spaces should be well lit and overlooked to provide natural surveillance; and
- Where multiple bays are provided, the parking area should be designed to ensure slow vehicle speeds and that pedestrians take priority and have suitable access provision.

Echelon Parking / Angled Bays

Angled Parking Bays - 60 degrees

Minimum Width	Minimum Length	Minimum Aisle Width behind spaces (if applicable)
2.5m	5.0m	4.2m

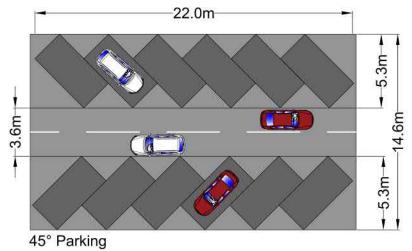
Figure 4.9 Angled Parking Bays – 60 degrees



Angled Parking Bays – 45 degrees

Minimum Width	Minimum Length	Minimum Aisle Width behind spaces (if applicable)
2.5m	5.0m	3.6m

Figure 4.10 Angled Parking Bays – 45 degrees



- SPA is required to demonstrate sufficient manoeuvring space;
- Where a large number of parking bays are provided together, it is expected that suitable
 landscaping should be provided to break up these spaces and reduce the visual impact. Sections
 of four to five spaces will typically be appropriate, depending on the character and design context.
 Spaces should be well lit and overlooked to provide natural surveillance; and
- Where multiple bays are provided, the parking area should be designed to ensure slow vehicle speeds and that pedestrians take priority and have suitable access provision.

Driveways

Driveway Spaces

Minimum Width	Minimum Length	Minimum Aisle Width behind spaces (if applicable)
Single space: 2.8m Double space: 4.8m	4.8m (Increased to 6m if in front of a door or garage)	6.0m (i.e. road width)

- The parking area should not extend beyond the associated property boundary;
- Consideration should be given to allow for pedestrian access to the entrance to a dwelling / building if a vehicle were to be in place, with consideration for Building Regulations Document M4 'Access to and use of buildings';
- Proposed access should be less than 10m from a road junction, increasing to less than 15m from major roads and busy road junctions; and
- A full schedule of conditions is found in the B&NES document 'Application to Construct a Vehicle Crossing over the Highway, Footway or Verge in Accordance with Highways Act 1980 Section 184 New Roads and Street Works Act 1991, Traffic Management Act 2004'.
- 4.14.4 Where footways are available, the preferred access option to a driveway is via a vehicle crossover of the footway. This ensures that the footway is provided as a continuous route with a suitable level of priority for pedestrians. Where a footway crossover access is to be provided, a 4.6m width dropped kerb should be installed (equivalent to three 1.5m dropped kerbs) with tapered kerbs on each side. Where this is not possible and a standard dropped kerb is deemed appropriate, this should comprise four dropped kerbs and two tapered kerbs.
- 4.14.5 Consideration should be given to the wider footway context, including consideration for
- The effect on pedestrian amenity multiple dropped kerbs along a stretch of footway causes continual undulations, resulting in a difficult walking environment;
- The effect of traffic volumes and footway widths; and
- The effect on on-street parking supply. Whilst on-street parking is not desirable, it is in some cases unavoidable. The use of dropped kerbs limits the availability of on street parking which increases the propensity for inconsiderate or dangerous parking practices.
- 4.14.6 Any features such as hedges that fall within a visibility splay for an access point (covering a 2.4m x 2.4m splay either side of the access) must be less than 0.6m high to ensure adequate visibility by a driver on exiting. Suitable hard or soft engineering solutions may be required to achieve the required visibility splay, taking into consideration both the effectiveness and visual appearance of the solution. Examples could include hard landscaping, surface treatment, low level planting or railings.
- 4.14.7 Any proposals for parking solutions should provide safe access to the highway, with egress in a forward gear to ensure safety for all road users.

Disabled Parking Spaces

Minimum Width	Minimum Length	Minimum Aisle Width behind spaces (if applicable)
2.5m	5.0m	1.2m Increased to 1.8m when parallel to the access aisle

Figure 4.11 Single Disabled Bay

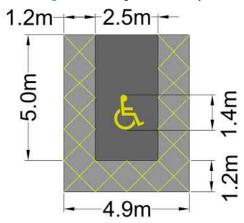
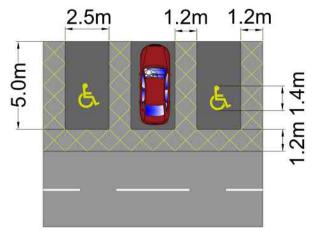


Figure 4.12 Multiple Disabled Bays



- Parking bays should ensure that both drivers and passengers can enter and exit vehicles, either
 of whom may have a disability;
- 1.2m marked access zones should be provided either side of bays. This can be shared with adjacent parking bays, as shown in Figure 4.12. Where a bay is adjacent to a footway, the buffer need not be provided. A 1.2m safety zone should be provided for boot access;
- The 1.2m access zones can be shared between two adjacent disabled spaces;
- Disabled parking bays should be located close to the main pedestrian entrances to the associated building, and ideally within 50m walking distance of the buildings served by the parking area. Consideration for the route, including the provision of dropped kerbs, should be provided in accordance with the principles outlined in Inclusive Mobility and BS 3800 Design of an accessible and inclusive built environment; and
- On-street parking provision for those with disabilities may be considered if appropriate. Provision should be in accordance with the principles outlined in Inclusive Mobility and BS 3800 Design of an accessible and inclusive built environment.

Parking for People with Young Children

Minimum Width	Minimum Length	Minimum Aisle Width behind spaces (if applicable)
2.5m (Increasing to 3.5m if an access zone is not marked) 3.2m wide spaces with no access zone may be considered where space is limited	5.0m	1.0m marked access zone to one side (Increasing to 1.2m if shared with an adjacent space)

Figure 4.13 Single Space for People with Young Children

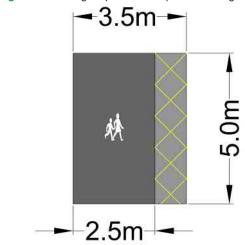
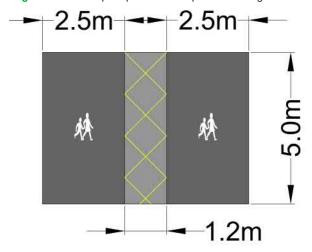


Figure 4.14 Multiple Spaces for People With Young Children



- The provision of dedicated parking for people with young children should be considered where their attendance is likely such as retail and leisure developments. Those with young children may have difficulty accessing and manoeuvring with child seats and lifting children in and out in conventional spaces; and
- Spaces should be marked with a suitable symbol / signage and located close to the associated building entrance.
- 4.14.8 If providing visitor spaces, these must be marked with 'VISITOR' if located in private car parking areas.

4.15 Cycle Parking Design Requirements

4.15.1 Cycle parking and access must form a key part of any development from the commencement of design. The provision of good quality and suitable cycle parking encourages people to cycle, which helps to reduce car parking pressure and contributed to a healthier lifestyle. Cycle parking should consider all types of cycles including but not limited to hand cycles, tricycles, adapted bicycles, bicycles with trailers and cargo bikes. Local Transport Note (LTN) 1/20 shows the different types of cycles which should be accommodated on cycle networks, shown as Figure 4.15.

Figure 4.15 Common range of Cycles



4.15.2 Detailed guidance on the provision of cycle parking is set out in LTN 1/20. Cycle parking should be located at the most accessible point to building entrances, with spatial priority over standard car parking. Cycle parking should be overlooked to provide natural surveillance, and with CCTV wherever possible, to deter anti-social behaviour including vandalism and theft, providing a sense of reassurance for users. For long stay uses, such as in residential or workplace settings, cycle parking must be provided in secure, covered shelters. Wherever possible, cycle parking should be located at ground level, however where this is demonstrably not possible, step free access is required, avoiding steep gradients.

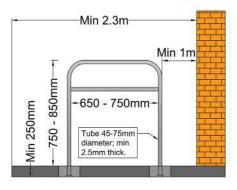
4.15.3 Access to cycle parking must be to / from a clear, wide and well-lit route to the wider off-site active travel network. Where cycle parking is provided at the rear of any building, including but not limited to dwellings, access should be provided which avoids the requirement to transport the bicycle through the property.

4.15.4 Additional cycling provisions such as air pumps, tool kits and charging points for e-bike batteries should be made available alongside cycle parking, particularly in locations such as travel interchanges and town centres. This should be delivered through Travel Plans.

4.15.5 The provision of Sheffield Stands is strongly preferred, in either parallel configuration or with stands at 45 degrees to a wall. Stands should be located on level ground, however where this is not possible, stands should be placed perpendicular to the slight slope to prevent bicycles moving. The provision of a cross bar is preferred at all locations to account for use by children, however these are essential where children are highly likely to be parking for example schools, libraries and play parks. Figure 4.16 details the required dimensions for cycle parking. Further relevant dimensions to be adhered to are shown at Table 11-2 of LTN1/20.

4.15.6 The minimum footprint for a Sheffield type stand is 2.3m x 1m, allowing for a bicycle to be parked on either side of the stand. Stands should be placed in minimum 250mm concrete foundations or secured using tamper proof bolts. Access aisles should ideally be 3m but must be a minimum of 1.8m if larger cycles use the end bay only. If larger cycles use internal parking stands then the access aisle width should ideally be 4m but must be a minimum of 3m (as shown in Figure 4.17). Where cycle parking is accessed through a door, users should not be required to navigate through more than one door and the door should be a minimum width of 1.2m.

Figure 4.16 Cycle Parking Layout (Sheffield Style Stands) and Dimensions



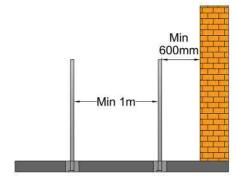
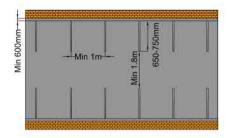
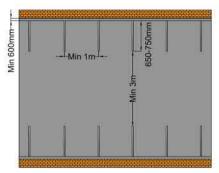


Figure 4.17 Cycle Parking Layout (Sheffield Style Stands) Plan View





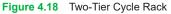
4.15.7 Where bicycle trailers or cargo bikes are commonplace, extra-long cycle stands should be provided with associated space to ensure the cycle and trailers do not obstruct footways or other road users, larger turning areas and extended dropped kerbs.

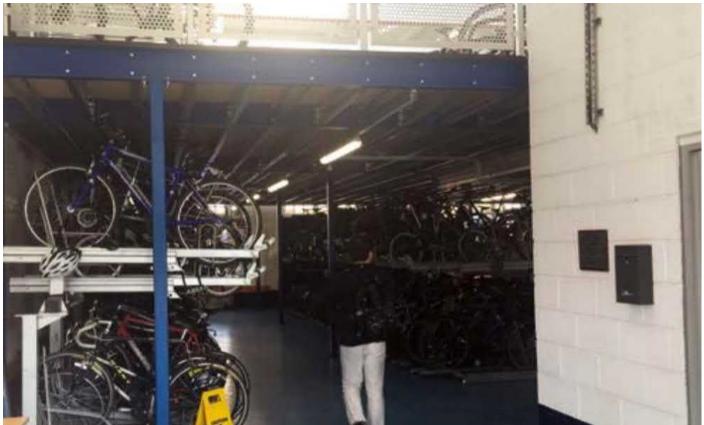
4.15.8 Although B&NES' requirement is for single tier cycle parking to be provided, it is recognised that there may be instances where there is a case for provision of a proportion of two-tier cycle parking such as those shown at Figure 4 17. This may include instances where high-density cycle parking is required to meet demand in limited spaces, such as for student accommodation or at travel interchanges. However, it is recognised that they provide only for 'standard' two-wheeled bicycles and can present usability challenges to some cyclists, and as such at least 5% of the cycle parking should be delivered through single-tier arrangements to accommodate non-standard cycles. Any two-tier provision is required to allow bicycle frames to be secured to the stand. A minimum 2.5m aisle width should be provided beyond the lower rack, or 3.5m aisle width where two-tier stands are located on either side of an aisle. A minimum 2.7m height clearance is required to accommodate upper level bicycles, with 500mm between stands.

4.15.9 Where cycle parking is provided for visitors stands should be located in line with the guidance provided at Paragraph 4.16.2. Short-stay parking should be provided in a convenient location with good natural surveillance. Sheffield standards, as shown in Figure 4.18, are considered to be the most appropriate for short-stay parking as they accommodate almost all forms of bicycle.

4.15.10 Where cycle parking is provided in a secure facility such as a secure, robust, weatherproof store or an internal walk-in store, the facility should be lockable and accessible only by those permitted to use the cycle parking, for example using keys or contactless cards. The safety of such facilities is paramount to the confidence of the people using them, and this needs to be inherent in their design.

4.15.11 For residential development, cycle parking should be provided within a dedicated bicycle storage facility within the curtilage of proposed dwellings / units. Bicycle storage is permissible within units, sheds, outbuildings or garages but only where these are large enough to accommodate the cycle parking standard. Dimensions should be shown on any plans or drawings submitted to inform planning applications.





4.16 Additional Parking Design Requirements

Micro-Scooters

- 4.16.1 Micro-scooters are becoming an increasingly popular mode of transport for both children and adults, and are being used for travel to work and school as well as for leisure trips and a replacement for walking and cycling modes.
- 4.16.2 Scooter parking should be provided in addition to cycle parking in places where they are likely to be used as a mode of transport, most notably at educational establishments including schools, colleges and universities. Being a mode of active travel, scooter parking should benefit from the same locational benefits as cycle parking including being well lit, overlooked to provide natural surveillance and / or covered by CCTV, and located close to building entrances.
- 4.16.3 Scooter parking should provide lockable racks which enable the handle to be secured by a catch, or as ground stands whereby the stand grips the wheel.

E-Scooters

- 4.16.4 Currently, privately owned electric scooters (also known as 'e-scooters') are not permitted on public roads. Only e-scooters which have been hired from a licenced company can be used on the public highway. A trial period for the licencing of e-scooters is currently underway in B&NES and the wider West of England region.
- 4.16.5 As / when the regulatory framework (encompassing private licencing and safety) comes forward for the entire West of England region and UK as a whole B&NES will require the provision of charging facilities for e-scooters within secure scooter facilities, either through the provision of stands which charge those with integrated batteries, or separate locker space for removable batteries. Any charging facility should benefit from its own power supply.
- 4.16.6 B&NES encourages the provision of space within developments which allow for the storage of micro-mobility services without impeding footway / footpath access for pedestrian, with special consideration for the impacts on disabled persons. Additional information on charging infrastructure is provided in Section 5 of this SPD.

Powered Two-Wheelers

- 4.16.7 PTW refers to the more commonly known motorcycles and scooters. Whilst motorised, PTWs represent a sustainable alternative to private car usage and should be provided for. Parking for PTWs should be marked to indicate exclusive use for PTWs, should benefit from dropped kerb access, and should be overlooked to provide natural surveillance, with CCTV wherever possible, to deter anti-social behaviour including vandalism and theft, providing a sense of reassurance for users. PTW parking should be well lit, away from uneven surface road features such as manholes and cat's eyes, and avoiding loose and uneven surface materials such as gravel or cobbles.
- 4.16.8 Anchor points should be installed within the PTW parking bay to enable users to secure their vehicle. Anchor points can either be raised or ground level.
- Raised anchors should provide a horizontal bar at 400-600mm height, welded or fixed with tamper proof bolts; and
- Ground level anchors are located below the surface allowing a lock to be looped through.

Electric Vehicle / Ultra-Low Emission Vehicle Charging

4.16.9 The requirement for and specification for ULEV charging points is set out in Section 5 of this SPD.

Operational Vehicle Parking

- 4.16.10 The operational vehicle requirements will be unique for each site, however the design for any operational vehicle parking directly impacts the safe, effective and efficient operation of the site. Operational vehicle parking design and the vehicle movements required to access parking should be robust, taking into consideration user hierarchy and the development's future needs. Of particular importance, the site design should ensure safe and suitable access can be achieved for pedestrians and cyclists, and potential conflict with the movement of heavy vehicles should be "designed out" wherever possible.
- 4.16.11 Commercial premises should be designed to include access for operational vehicles and servicing facilities, allowing sufficient space to access and egress the site in

a forward gear.

4.16.12 In many situations, parking bays may not be required for servicing vehicles such as delivery vans, as they will be stationary only for a short time. Where parking bays are required on-site for operational vehicles, the dimensions for generic vehicle types are set out in

 Table 4.8
 Operational Vehicle Parking Bay Dimensions

Table 4.8. Proposals with servicing requirements must identify the largest design vehicle required to access and site and demonstrate the suitability of the site layout to accommodate parking, loading and manoeuvring in a safe and efficient manner, using SPA).

Vehicle Type	Minimum Width	Minimum Length
Vans and minibuses	3.5m	7.5m
Rigid trucks, buses and coaches	3.5m	12.0m
Articulated trucks	3.5m	17.0m

Ultra-Low Emission Vehicles



5. Ultra-Low Emission Vehicles

5.1 Introduction

- 5.1.1 This section of the Transport & Development Supplementary Planning Document (SPD) provides guidance and standards relating to Ultra-Low Emission Vehicles (ULEV) for new development in Bath & North East Somerset (B&NES). It supports the Council's planning framework, contributes to the Local Plan Partial Update (LPPU) and is a material consideration in the determination of planning applications.
- 5.1.2 Air quality and sustainability are key planning considerations. Driven by the National Planning Policy Framework (NPPF), planning policies and decisions are expected to deliver continued improvements for local air quality and sustainable development. Adoption of a ULEV guidance within this SPD introduces progressive measures to make a positive contribution to air quality and provide other socio-economic benefits across the B&NES District.
- 5.1.3 This section of the SPD:
- Outlines a strategy for determining the provision of charging infrastructure for new residential and business developments;
- Provides guiding principles for developers;

- Demonstrates the importance of providing ULEV infrastructure to accelerate the transition from Internal Combustion Engine (ICE) to ULEV or Electric Vehicles (EV); and
- Defines standards and how they are applied.
- 5.1.4 The guidance contained in this section of the SPD has been developed in accordance with local, regional and national policy and guidance frameworks, as presented in Figure 5.1.
- 5.1.5 The requirement for developments to support the uptake of ULEV is established through the Placemaking Plan. This requires developments which come forwards to follow the guidance in this SPD and as such it is a material consideration in the determination of planning applications.
- 5.1.6 This SPD sets the standards that developers will be expected to follow when planning schemes. The SPD allows some flexibility in the application of ULEV requirements where relevant evidence demonstrates that this is appropriate on a case by case basis. This does not mean that standards will be relaxed in every case nor will any case set a precedent for ULEV provisioning in the future.



Figure 5.1 ULEV Policy and Guidance Framework

- Bath & North East Somerset Corporate Strategy;
- Bath & North East Somerset Placemaking Plan;
- Bath & North East Somerset Climate Emergency Plan;
- Bath & North East Somerset Clean Air Zone;
- Bath & North East Somerset Air Quality Management Plans and Air Quality Management Areas;
- Bath & North East Somerset Liveable Neighbourhoods;
- Bath & North East Somerset On-street EV charging strategy.

- Climate Change Act (2008);
- Road to Zero Strategy;
- Industrial Strategy (2018);
- National Infrastructure Strategy (2020);
- National Clean Air Strategy (2019);
- Future of Mobility: Urban Strategy;
- Clean Growth Strategy;
- Decarbonising Transport;

- National Planning Policy Framework;
- West of England Ultra-Low Emission Vehicle Policy Statement;
- West of England Joint Local Transport Plan (JLTP4) (2020);
- Gateway Strategic Transport Plan (2020).



5.2 ULEV Objectives

- 5.2.1 In a changing world where social and environmental responsibility is gaining more traction B&NES Council aims for new developments to deliver benefits to the community and for the climate. This guidance supports the uptake of ULEV through smart planning and deployment of ULEV infrastructure for sustainable benefit and to deliver:
- Air Quality improvements, by reducing hazardous pollutants originating from road vehicles that have severe impacts on resident's health;
- Reduction in carbon emissions at the tailpipe and lower the region's contribution to climate change; and
- Opportunities for local economic development, through job creation, reduced transportation costs, increased disposable income for residents as well as advancing the image of B&NES.
- 5.2.2 B&NES recognises the current position of ULEV guidance within a "frontier planning" scenario, where there are many unknowns with rapidly changing technology. This guidance is based on current position and knowledge of likely future trends but aims to guide future new developments.

5.3 Balancing ULEV Opportunities and Challenges

- 5.3.1 The introduction of this ULEV guidance is an opportunity to enhance the wider provision of charging infrastructure across the region by setting standards for new developments. This will provide targeted and economically effective delivery to the point of demand.
- 5.3.2 An effective strategy for supporting and managing the implementation of ULEV infrastructure is vital to support B&NES' broader sustainability, environmental and transport ambitions. This requires a balanced but tested approach to deliver ULEV infrastructure to meet future needs of the community whilst respecting wider planning considerations. It must be seen in the context of wider objectives to reduce vehicle usage overall and is not intended to promote ULEV over other sustainable forms of transport such as walking, cycling or public transport.

- 5.3.3 B&NES' 'On-Street Electric Vehicle Charging Strategy' sets out the current provision of EV charging across the District, considers the future demand for on-street vehicle charging, and outlines options and ULEV interventions within the broader context of funding, site selection, design guidance and infrastructure implementation. This guidance is only applicable to new developments but has synergies in its measures.
- 5.3.4 This guidance supports the 'West of England Combined Authority (WECA) ULEV Statement' which sets out clear objectives:
- Accelerate the shift from petrol and diesel to zero emission vehicles;
- Support the roll out an integration of smart chargepoint infrastructure at homes, businesses, and other locations;
- Create a wider awareness of ULEVs and their role in a low carbon society; and
- Support innovation and research in the region.
- 5.3.5 The WECA strategy recommends a host of different measures, from passive provision for ULEV infrastructure, electric car clubs and recognising the role of electric mobility as a whole promoting of zero emission transport.
- 5.3.6 This guidance sets out ULEV infrastructure standards to better reflect changing national and local circumstances. The guidance is conscious of the need to be inclusive and that charging infrastructure is provided to meet the needs of all sectors of the community. It is important to recognise that many of our existing neighbourhoods were built when car ownership levels were much lower than they are today, that current provisioning is ICE based and that there are an increasing number of mobility options which are not reliant on personal car ownership. This guidance identifies measures to balance ULEV uptake and wider mobility options.

5.4 Application of this Guidance

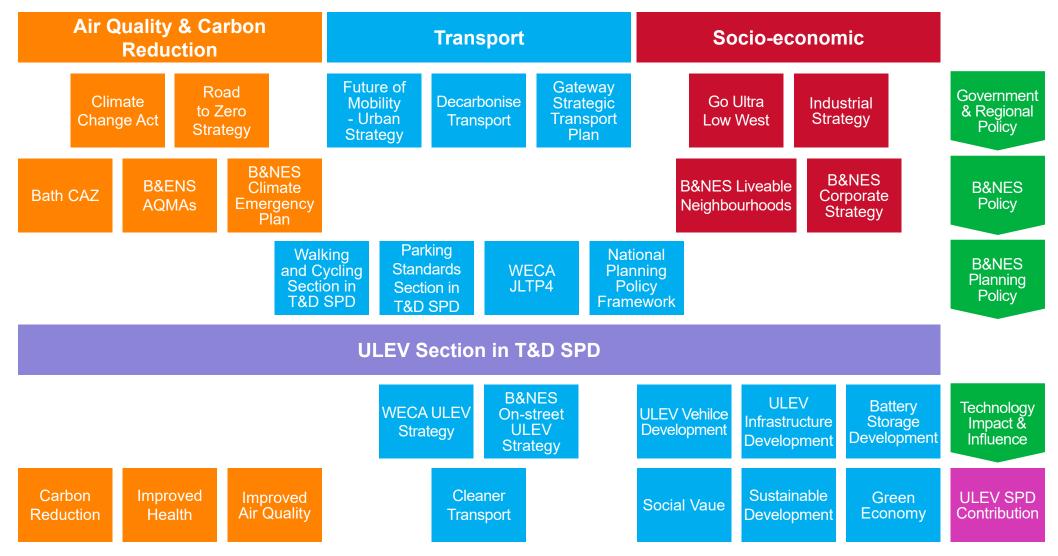
- 5.4.1 The primary purpose of this section of the SPD is to provide guidance and standards on the accommodation and provision of ULEV infrastructure for the planning and proposal of new developments.
- 5.4.2 Whilst this does not apply to "retro-fit" of charging infrastructure, the guidance will apply where an existing development is being materially changed / extended and therefore ULEV provisioning must meet the standards outlined in Section 5.9.
- 5.4.3 ULEV adoption, promotion and education is a secondary and consequential outcome from the installation of ULEV infrastructure for new developments.
- 5.4.4 New developments with publicly accessible parking (e.g. supermarkets, leisure facilities etc.) can offer further opportunity to underpin and extend the ULEV infrastructure network and support the delivery of a wider ULEV Charging Point Network Strategy.

- 5.4.5 The guidance does not apply to:
- Charging network strategy;
- Public service fleet transformation;
- Commercial fleet transformation;
- Retrospective application for ULEV provision; or
- Existing workplace and commercial installation, unless a new development.

5.5 Context

5.5.1 As the world faces a climate crisis and B&NES, like others, are taking constructive action to tackle an array of challenges, with transportation remaining a high priority. B&NES have adopted and contributed to government and regional policies which influence the promotion and adoption of ULEV. Through positive policies such as the B&NES Climate Emergency Plan, the Bath Clear Air Zone and multiple Air Quality Management Areas (AQMAs) across the District, as well as supporting wider initiatives such as the WECA ULEV strategy and their own on-street EV strategy, B&NES see ULEV playing a crucial role in tackling emissions.

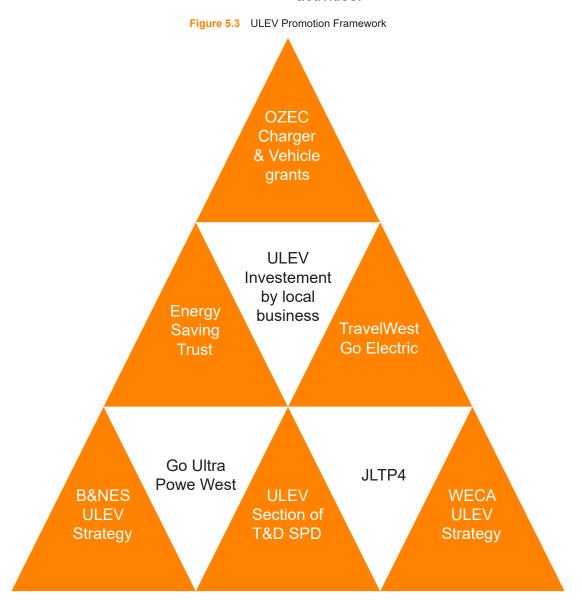
Figure 5.2 ULEV Guidance Context



5.6 ULEV Context

Ultra-Low Emission Vehicles

- 5.6.1 The Vehicle Certification Agency currently defines ULEV as a vehicle which emits less than 75 grams of carbon dioxide (CO2) per kilometre (g/km) from the tailpipe. It is worth noting that as technology advances, the future definition of ULEV may change to 50 g/km CO2.
- 5.6.2 The Office of Zero Emission Vehicles (OZEV), formerly Office of Low Emission Vehicles (OLEV), part of the Department for Transport (DfT) and Department for Business, Energy & Industrial Strategy (BEIS), works across government supporting the early market for ULEV. OZEV provides a valuable resource including grants, policy papers, guidance and regulation to enable to economic growth and help reduce greenhouse gas emissions.
- 5.6.3 B&NES is not alone in confronting carbon and other emissions from transport, and continue to work with Government, industry and other stakeholders to promote ULEV adoption, as highlighted in Figure 5.3.
- 5.6.4 Locally B&NES, along with its WECA partner authorities, are focussed on promoting zero emission, 0 g/km CO2, at the vehicle tailpipe. Additional measures, in line with JLTP4 commitments, seek to maximise the carbon reductions by promoting charging using energy from renewable sources.
- 5.6.5 Wider promotion and investment regionally and nationally is available in many forms, including the TravelWest 'Go electric' promotion of EV and the Go Ultra Low West investment in charging infrastructure across the region. OZEV promote, fund and support chargepoint infrastructure across the UK and therefore an ideal reference point for ULEV activities.



Active and Passive Provision

- 5.6.6 A minimum 7 kW active and passive provision for both residential and non-residential buildings is required. Some early home installations are 3.6 kW chargepoints, however, today the majority of the installations are 7 kW and expected increases in battery sizes and technology developments could make chargepoints less than 7 kW obsolete for future car models.
- 5.6.7 Active provision is the implementation of fully connected "ready to use" charging infrastructure. Active provision offers positive and visual encouragement for the uptake of ULEV, demonstrating availability for charging and the positive thinking of developers and Authorities in delivering sustainable and climate conscious infrastructure.
- 5.6.8 Active provision permits the application of smart charging infrastructure which provides a balanced approach to optimise charging facilities and the operational demands for electricity supply.
- 5.6.9 Passive provision is the implementation of underlying infrastructure. This should include additional capacity in the connection and distribution system to the local Distribution Network Operator (DNO). All civil works including ducting, draw pits and chambers etc, should meet current industry regulations and standards and support the provisioning to the Standards specified in Section 5.9, to minimise future works when extending the ULEV provision.
- 5.6.10 Passive provision at developments provides future-proofing for the potential uptake of ULEV in the longer term, above that which is forecast. Whilst initial capital costs are increased, the cost and disruption of retrospective action to install chargers later is significantly less. It therefore represents an appropriate balance between cost and provision.
- 5.6.11 The WECA ULEV strategy stretches the boundaries of passive provision to include all cabling however this may be counter-productive as cable integrity may be compromised whilst inactive and technology changes may affect cable sizing.
- 5.6.12 Specific to the connection to the local DNO, B&NES ULEV standards adopt a progressive position ensuring that developments accommodate sufficient electrical capacity to meet the full passive provision requirements. It is appreciated that development costs related to electrical capacity

requirements are often non-linear, e.g. exceedance of a supply threshold may result in a need for a new sub-station, adding substantial cost. B&NES' position is that the standards must be met and that exceptions will only apply where it can be evidenced that meeting the standard results in a prohibitively unreasonable additional cost for the development.

Electric Mobility / Micro-Mobility



- 5.6.13 This guidance is focussed on the provision of ULEV charging infrastructure for new developments, however it is important to recognise the growing interest in and uptake of alternative transport modes and especially e-mobility, such as eBikes, e-Cargo Bikes and scooters. These offer new opportunities and benefits in terms of the social and environmental aspects of reducing road transport and are important considerations for any new developments, which means that walking, cycling and collective transport are planned along with traditional modes.
- 5.6.14 By taking a more holistic approach, association of ULEV charging infrastructure with initiatives such as the B&NES "try before you buy" loan eBike scheme can emphasise the potential and impact that e-mobility can offer for the environment, through wider association.
- 5.6.15 Electric Motorcycles will be able to use ULEV charging infrastructure, and therefore this ULEV guidance supports their use as a form of e-mobility.
- 5.6.16 A more holistic view should be taken when planning ULEV infrastructure, such that an overall integrated solution is adopted which is both sustainable and future-proofed. Consideration of co-location of charging infrastructure provides a shared electric charge offering, sometimes referred to as a "hub".

5.6.17 Electric Car Clubs

5.6.18 Electric car clubs provide an excellent accessible means to low emission transport. B&NES understand the benefits of electric car clubs as they are working in partnership with private suppliers to provide access to electric pool cars. Requirements for provision of access to electric car club vehicles is included in Section 4.12, and they will be viewed positively in terms of the sustainability case for development and for proposed levels of parking.

5.6.19 Electric car clubs provide the opportunity for communities across a wide spectrum of economic background to gain access to greener travel on a "pay as you drive" basis. Generally located in urban and town centres, electric car clubs provide a viable alternative to vehicle ownership and further contribute to reduced carbon, emissions and traffic congestion.

Electricity Supply

5.6.20 New developments offer an ideal opportunity for managing the demand on electrical distribution networks. A common issue today is that retrospective network reinforcement is costly and time consuming, so planning and designing a new development with the electrical capacity to meet the current and forecast demand is essential for ULEV futureproofing.

Parking

5.6.21 ULEV charging infrastructure provision should be based on identifying the needs of specific ULEV user groups in order to ensure cohesive and balanced delivery, especially when it comes to car parking. Location Types, based on ULEV user groups identified from professional experience and market research from ULEV schemes across the UK, include:

- Destination Charging;
- Residential:
- Transit Locations;
- Workplaces;
- Commuters; and
- Taxis (and car sharing clubs / others).

5.6.22 Developers delivering parking facilities should carefully consider the ULEV infrastructure requirements to meet the individual demands of each user type, alongside the application of the ULEV standards. The B&NES 'On-Street Electric Vehicle Charging Strategy' provides useful and specific guidance on the charger selection. It outlines a valuable process which, whilst relevant to on-street parking, will aid developers when implementing ULEV in a wider context.

5.6.23 The ULEV parking standards should be considered in parallel with the other parking standards included at Section 4.10, especially with regard to the standards on the level of provision.

Misuse of ULEV Infrastructure

5.6.24 To avoid misuse of ULEV charging infrastructure parking, careful consideration needs to be given to avoid or prevent parking spaces being misused, such as spaces being occupied longer than required or inappropriately by non-electric vehicles. The broad process for achieving this is described below:

- Ensure the appropriate level of charging spaces are provided;
- Select ULEV charging infrastructure to meet ULEV user needs;
- Futureproof through passive provision of ULEV infrastructure; and
- Monitor and enforce, if needed.

5.6.25 The scale of provision of ULEV charging infrastructure should be relevant to the initial and forecast future demand for the development. It is important to recognise that availability, accessibility and ease of use of the chargepoints are critical factors for their successful and sustained use. For larger developments the allocation and positioning of ULEV chargers should promote ULEV adoption but avoid inconveniencing other users which can be a cause for misuse.

5.6.26 Installation of ULEV signing, including spaces, directional signing and road-marking of ULEV parking spaces will encourage more appropriate use.

5.6.27 The selection and installation of charging infrastructure to meet ULEV user group requirements is a crucial aspect in

avoiding misuse of charging spaces. Aligning the right charger (charge rate / connector / etc.) and number of charge stations at a location can reduce, but not totally eliminate, misuse. The initial cost of infrastructure needs to be measured with the predicted use and include futureproofing through passive provision for a more balanced approach. ULEV provisioning, active and passive, must be included in B&NES 'Sustainable Construction Checklist SPD' submissions.

5.6.28 The inappropriate use of electric charging spaces by ICE vehicles which do not use or have the need to use the charger is commonly referred to as "ICEing". This is not only annoying for the ULEV user but diminishes the social and environmental benefits the charger was intended to deliver. In many instances this challenge cannot be overcome without additional compliance systems being employed at charger locations, such as CCTV and or ANPR along with associated parking management systems.

5.6.29 Enforcement options are available for on-street ULEV provision, such as time limited TRO, Residents Parking Zones (RPZ), Traffic Regulation Order (TRO) and ULEV permitting, as proposed in the B&NES EV Strategy. These are limited in their application for new developments and should be considered on a location by location basis.

Active Travel Alignment

5.6.30 Development and neighbourhood planning should address opportunities which relate to economy, community, and transport and therefore ULEV infrastructure offers another component to safeguard the environment and climate.

5.6.31 Walking and cycling, as outlined in Section 3.5 are accepted as contributing to improved health, quality of life as well as a more beneficial to the environment. ULEV does not constitute active travel, whilst the social and environmental benefits it delivers are complementary, ULEV infrastructure must therefore not compromise the access and benefits to others, for example through impacting on footways.

Affordable Homes

5.6.32 Development and neighbourhood planning should address opportunities which relate to environment justice for access to ULEV infrastructure. Affordable Homes will need to meet the same ULEV standards as any development.

Charging 'Hubs' or Charging Stations

5.6.33 Charging 'hubs' refer to a physical site with at least one charge point installed suitable for recharging at least two EVs. A station sometimes has other physical structures accompanying the charge point(s) such as an energy supply enclosure (feeder pillar), weather shelter, signage, protection barriers for the equipment etc.

5.6.34 The development of charging hubs requires considerable feasibility and planning but presents significant opportunity to enhance ULEV provision and support wider network development over large areas.

5.6.35 Guidance to support development of charging hubs should include:

- Feasibility EV charging requirements, demand studies, customer turnover, customer profile;
- Charge point specifications quantity, power, charging protocols and outlets, access and payment methods;
- Site Assessments accessibility, building & planning, environmental, geotechnical etc.;
- Grid Connection power, HV connections, transformers, sub-station requirements;
- Canopies function, size, structure, renewables;
- Layout Options a modular design solution adaptable to suit different requirements, considering bay orientation and size, dropped curbs, plinths, signage, supports, cabling, scalability; and
- Additional facilities such as retail outlet, rest area / facilities, etc.

5.7 ULEV Guiding Principles

- 5.7.1 It is vital that the delivery of ULEV infrastructure for new developments is aligned with the B&NES transport and environmental strategies and policies. An agile approach to ULEV infrastructure planning can be supported by following a set of guiding principles:
- User compatibility: Match the ULEV user to the development by considering the parking and charging needs of the different types of ULEV user, specific to the function and use of the new development. Short-term visitors will have different charging needs to residents or business premises. Do not assume all ULEV users are the same;
- Future-proofing: Optimise passive provision for all developments to minimise future cost and installation requirements to promote and ease the uptake of ULEV;
- Socially justifiable: In line with Liveable Neighbourhoods, it is important to cater for equitable access to ULEV. Provision of ULEV charging infrastructure and or supporting private ULEV services, such as electric car clubs, should be included for all developments; and
- Optimise carbon benefits maximise carbon, sustainability and health benefits by incorporating green energy supply to chargepoints.

5.8 ULEV Charging Design Principles

- 5.8.1 Good practice in ULEV infrastructure design should consider those factors which may compromise others, whether charging or not, and support their successful implementation, such as:
- Adequate access for other road and pavement users;
- Quality of streetscape and minimising clutter;

- Site selection to ensure prominent locations for chargepoints within developments;
- Parking enforcement;
 - restrictions for chargepoint parking spaces for non-charging use may be appropriate in some locations
 - Parking enforcement on private land is unregulated and relies on the laws of contract and trespass; and
 - On-street parking restrictions must be designed to adoptable standards and have a suitable TRO to ensure any restrictions are enforceable.
- Where on street chargepoints are provided all charge spaces must meet the relevant LA's parking standards. Development must cover all additional costs for meeting these standards, including TROs;
- Charging bay design layouts must also consider;
 - Avoiding trailing leads and trip hazards;
 - Vehicle / vehicle conflict;
 - Vehicle / pedestrian conflict and pedestrian accessibility;
 - Impact of 4m charge lead radius' on bay size and location (in addition to standard parking bay sizing). Perpendicular and parallel parking arrangements e.g. 9m parallel bay lengths to accommodate both front and rear vehicle charge ports; and
 - Charge equipment sizing, positioning, and protection.
- Charging Connectors and sockets The international IEC standard 62196 specifies the plugs, sockets and outlets required for the conductive recharging of EVs; and
- Substations substations to support charging infrastructure may be required and should be considered as part of the development design (location and size considerations).



5.8.2 These guiding principles will support design, implementation and decision making when planning the installation of ULEV infrastructure for new developments. This SPD should be read in conjunction with all other relevant SPD's for consistency of approach and application, with particular links to the Parking Standards section of this Transport & Development SPD, and the Sustainable Construction Checklist SPD, as well as the parent policy within the LPPU.

5.9 ULEV Parking Standards

- 5.9.1 This section provides standards for developments for the provision of ULEV infrastructure
- 5.9.2 This section of the SPD covers standards for residential "New Buildings", which refers to every new residential building, as well as buildings undergoing a material change of use to create a dwelling. Standards covering "Existing buildings undergoing major renovation" reference residential building undergoing any changes that require "major planning permission".
- 5.9.3 Non-Residential development standards cover all new development, inclusive of existing buildings undergoing material change of use and / or existing buildings undergoing major renovation. Major renovation is defined as changes that require "major planning permission"1. This is set out in the Sustainable Construction Checklist SPD.

- 5.9.4 The standards within have been developed with knowledge of the '2019 Electric Vehicle Charging in Residential and Non-Residential Buildings' government consultation (outcome of this consultation pending), as well as the West of England ULEV Policy Statement. However, the standards are not limited to the suggestions in these documents and may exceed their requirements in reflection of the wider ambition of B&NES in setting it's ULEV standards for developers as set out in this document.
- 5.9.5 It should be noted that at the time of writing the outcome of the '2019 Electric Vehicle Charging in Residential and Non-Residential Buildings' government consultation had not been published. As and when any resulting regulations come into force, developers are required to meet whichever standard is the greater requirement between those published and those outlined in this SPD.
- 5.9.6 The standards reflect the provision across residential and non-residential developments, with reference to the number of parking spaces which can be used to supply charge to a ULEV at all times without restriction.
- 5.9.7 It should be noted that the term "chargepoints" refers to a ULEV charger capable of supplying charge to a ULEV vehicle. Chargepoints with more than one cable covering multiple parking spaces are encouraged, however, supply of one chargepoint with two charging cables (for example) does not constitute supply of two active parking spaces unless both spaces can independently meet the active charging requirements set out in the standards.



Table 5.1 ULEV Charging Standards for Residential Development

Residential Schemes	Number of Dwellings ¹	Number of parking spaces ²	Active ULEV charging requirement	Passive charging ULEV requirement
All new development	Single-dwelling	1 space	1 space	N/A
(including Existing		>1 space	1 space	All spaces
development undergoing	Multi-dwelling	1 space	1 space	N/A
renovation requiring		>1 space	All spaces	N/A
"Major planning				
permission".				

ULEV Charging Standards for Residential Development – Conditions and Exemptions

Charging Requirement Cost Exemptions ULEV Charging Standards for Residential Development:

"A minimum 7 kW active and passive charging provision for residential buildings is required. Where costs for grid connections of 7kW minimum active and passive charging can be evidenced to exceed £3,600 (per dwelling), an exemption to a supply of slow charge, 16 amp 3.7 kW, single phase power supply active and passive charging may be applicable. Further exemptions may also apply for grid connections for 3.7 kW active and passive charging costing more than £3,600 for (per dwelling)."

Non typical car parking space provision agreements, e.g. on-street or off-site parking:

"However and wherever parking standards are to be adhered to the relevant active and passive charging requirements must be met for all parking spaces associated with the development".

Large Residential Developments with Community Hubs (30 or more dwellings or if outline 1.5ha or greater site area).

"Where new large residential developments link directly with local community / commercial / retail development (new or existing) at least one rapid chargepoint (>50kW) must be accommodated within the development (in additional to other ULEV standards requirements)."

Residential ULEV Charging Design Guidance:

In addition to parking design guidance, application of principles of design in relation to layout of ULEV charging must be demonstrated (Section 5.8)

EV / ULEV Charging Points (Model Pre-Occupation Planning Condition)

"No residential scheme or use hereby permitted shall be occupied or use commenced until details of the total number of car parking spaces, the number / type / location / means of operation and a programme for the installation and maintenance of Electric Vehicle Charging Points and points of passive provision for the integration of future charging points has been submitted to and approved in writing by the Local Planning Authority prior to construction of the above ground works. The Electric Vehicle Charging Points as approved shall be installed prior to occupation and retained in that form thereafter for the lifetime of the development.

Reason: To promote sustainable travel, aid in the reduction of air pollution levels and help mitigate climate change in accordance with Policy ST1 of the Bath and North East Somerset Placemaking Plan."

¹ In Regulation 2 of the Building Regulations a dwelling is defined to include both "a dwelling-house" and "a flat". A residential building can therefore either be a building that is a dwelling ("dwelling house" in the Building Regulations), such as a detached or semi-detached house, which for the purpose of this SPD is referred to as a single-dwelling. A residential building can also be a building that contains several dwellings or "flats". A flat is defined in the Building Regulations to mean a "separate and self-contained premises constructed or adapted for use for residential purposes and forming part of a building from some other part of which it is divided horizontally". For the purpose of this SPD a block of flats is referred to as a multi-dwelling.

Parking spaces physically adjacent, defined legally as "within the site boundary of the dwelling",

Table 5.2 ULEV Charging Standards for Non-Residential Development

Non Residential Schemes	Number of parking spaces ³	Active ULEV charging requirement	Passive charging ULEV requirement
All new non-residential development (including	1 space	1 space	N/A
Existing development undergoing renovation	1 – 30 spaces	1 in 10 spaces	1 in 2 spaces
requiring "Major planning permission"	>30 spaces	1 in 10 spaces	1 in 5 spaces

ULEV Charging Standards for Non-Residential Development – Conditions and Exemptions

Charging Requirement Cost Exemptions ULEV Charging Standards for Non-Residential Development:

"A minimum 7 kW active and passive charging provision for residential buildings is required. Where costs for grid connections of 7kW minimum active and passive charging can be evidenced to exceed £3,600 (per space), an exemption to a supply of slow charge, 16 amp 3.7 kW, single phase power supply active and passive charging may be applicable. Further exemptions may also apply for grid connections for 3.7 kW active and passive charging costing more than £3,600 for (per space)."

Non-Residential ULEV Charging Design Guidance:

In addition to parking design guidance, application of principles of design in relation to layout of ULEV charging must be demonstrated (Section 5.8).

Non-Residential Disabled ULEV Charging:

For all development where disabled car parking is provided disabled space provision must meet the same ULEV active and passive charging provision requirements as those in Table 5.2.

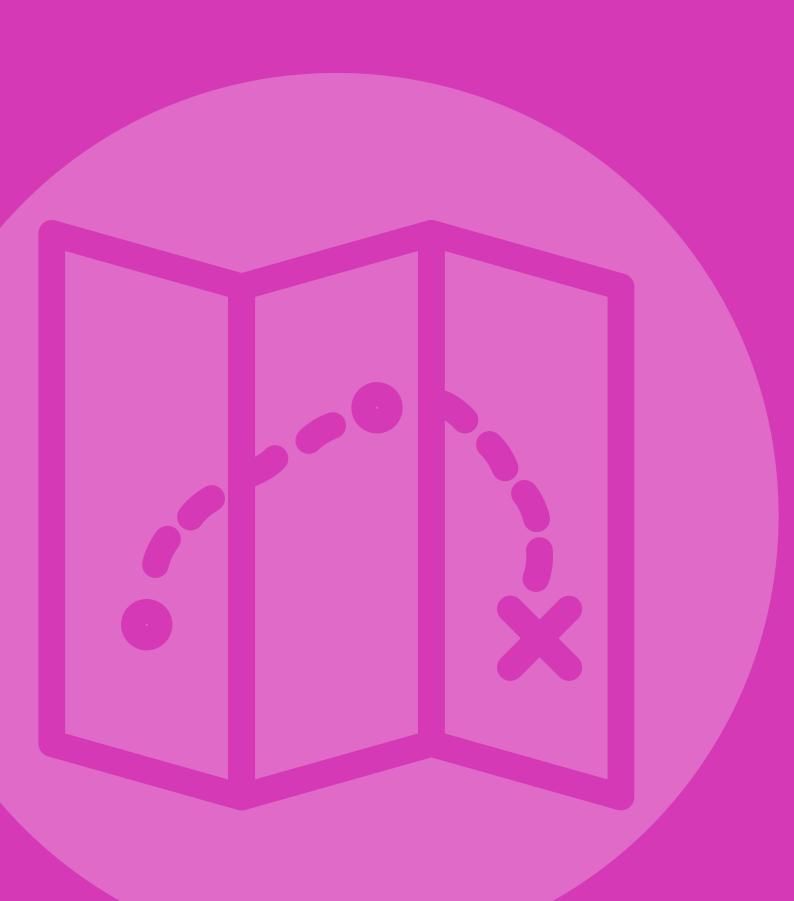
EV / ULEV Charging Points (Pre-occupation model planning condition):

"No non-residential scheme or use hereby permitted shall be occupied or use commenced until details of the total number of car parking spaces, the number / type / location / means of operation and a programme for the installation and maintenance of Electric Vehicle Charging Points and points of passive provision for the integration of future charging points has been submitted to and approved in writing by the Local Planning Authority prior to construction of the above ground works. The Electric Vehicle Charging Points as approved shall be installed prior to occupation and retained in that form thereafter for the lifetime of the development.

Reason: To promote sustainable travel, aid in the reduction of air pollution levels and help mitigate climate change in accordance with Policy ST1 of the Bath and North East Somerset Placemaking Plan."

³ Parking spaces physically adjacent, defined legally as "within the site boundary of the development",

Travel Plan Guidance



6. Travel Plan Guidance

6.1 Introduction

- 6.1.1 This Travel Plan guidance has been developed by Bath & North East Somerset (B&NES) Council to promote consistency and best practice for Travel Planning across the District. It is intended to support those involved in planning for new developments, including developers, transport consultants and planners. It can also be used by organisations who wish to produce a Travel Plan on a voluntary basis.
- 6.1.2 This section of the Transport & Development Supplementary Planning Document (SPD) explains the Council's requirements for Travel Plans, ensuring that developments across the area support sustainable transport and minimise negative impacts. Alongside the guidance provided templates and examples are used to demonstrate the requirements and assist those who are preparing Travel Plan documents. This guidance applies to all development that generates a significant level of travel demand, such as:
- New residential developments;
- New employment development;
- Educational premises; and
- Infrastructure interchanges such as rail stations or transport hubs.
- 6.1.3 The guidance sets out:
- What a Travel Plan is and what benefits it can deliver, including the different types of Travel Plans;
- When a Travel Plan will be required in conjunction with a planning application;
- What the Travel Plan should include;
- The different Travel Plan delivery options for applicants or developers; and
- How Travel Plans can be secured, monitored and enforced.
- 6.1.4 It is acknowledged that best practice and requirements change over time, therefore this guidance will be reviewed on a regular basis to ensure that it remains current.

6.2 What is a Travel Plan?

- 6.2.1 Travel Plans are an essential management tool which deliver sustainable access for an organisation or development site, regardless of the use. They have been defined as "a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed."1
- 6.2.2 Travel Plans are not merely a means to gain planning permission, but instead a dynamic process for managing access and improving choices that continues for the life of the development, requiring ongoing commitment from developers and occupiers.

6.3 Why Travel Plans?

- 6.3.1 When positively prepared and implemented, Travel Plans can provide a wide variety of benefits for developers, occupiers and communities. These include:
- Encouraging sustainable travel;
- Lessening traffic generation and its detrimental impacts;
- Reducing carbon emissions and the associated impacts on climate change and health of residents;
- Creating accessible, connected, inclusive communities;
- Improving health and wellbeing outcomes and quality of life;
- Improving road safety; and
- Reducing the need for new development to increase existing road capacity or provide new roads.
- 6.3.2 These benefits can be used to inform objective setting for the Travel Plan, which is discussed in Section 6.5.

¹ Good Practice Guidelines: Delivering Travel Plans through the Planning Process, Communities and Local Government, Department for Transport (2009). Whilst now superseded, this document and its evidence base remains a useful technical resource for practitioners.

6.4 What are the different Travel Plans?

6.4.1 There are four different types of Travel Plan which may be required, depending on the size of the proposed development and stage of the development application.

Full Travel Plan

Prepared where the proposed use and accessibility needs are known. Will have clear outcomes, appropriate targets and relevant measures, tailored to the end occupier(s) – e.g. workplace / residential / educational. A Full Travel Plan will be expected to accompany planning applications where the type and scale of use are known, with an updated plan prepared within 3 months of First Occupation to reflect site operation.

Interim Travel Plan

Prepared as an intermediate plan where the exact scale and split of uses cannot be identified at the application stage, e.g. outline applications for residential or speculative employment developments. It should provide a strategy for achieving sustainable access and travel opportunities based on the site location and will include a plan and timescale for how and when the Full Travel Plan will be delivered. This will usually be defined as within a set time period of a level of occupation, dependent on use type and anticipated build out rate.

Framework Travel Plan

Sometimes referred to as an 'umbrella' plan, a framework is applicable for mixed-use developments with multiple occupants. It should set out the principles for achieving sustainable access at the site, establishing outcomes, targets and indicators, and timescales for their achievement. It will identify measures and initiatives that will be required and highlight indicative measures for different users, e.g. residents, employees and visitors. Identifies central administration, monitoring and review processes and responsibilities. Individual occupiers will need to devise tailored plans for their element of the development; for smaller occupiers a "Travel Plan Statement" may be appropriate. These individual plans will need to be produced within 3 months of First Occupation of the user.

Travel Plan Statement

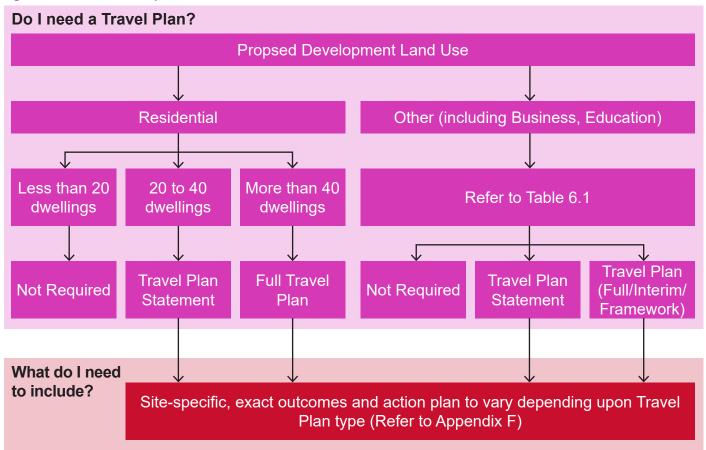
For smaller developments. Focusses on activities to enable and enhance multi-modal access or address specific mitigation measures, whilst being proportionate to the scale of development. It can take the form of an 'Action Plan' by the developer or occupier of the site.

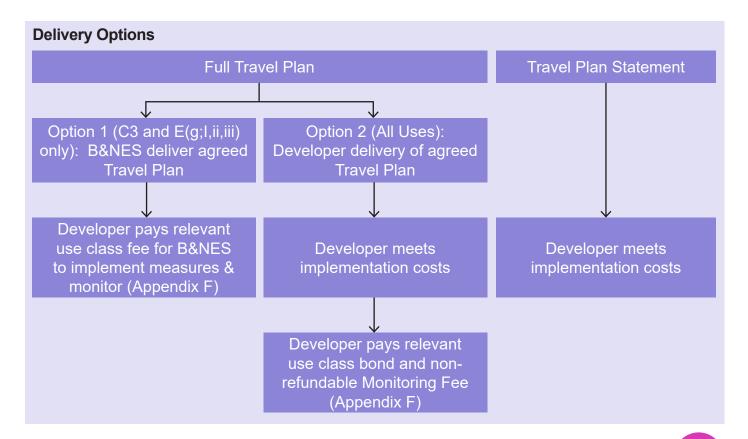


6.5 Developing a Travel Plan

6.5.1 Figure 6.1 outlines the process for identifying when a Travel Plan is required, content, delivery options and associated costs. As supported by Section 9 of the National Planning Policy Framework (NPPF), this process should be considered from the earliest stages of development proposals to ensure that opportunities to integrate sustainable transport solutions can be maximised.

Figure 6.1 Travel Plan Development Overview





6.6 Do I Need a Travel Plan?

- 6.6.1 A Travel Plan will be required for submission with all planning applications as defined in Figure 6.1. Travel Plans may also be required by the Council for developments under the indicated thresholds where the development may generate significant transport impacts. This may include:
- Development in or near Bath's Clear Air Zone (CAZ) or Air Quality Management Areas (AQMA);
- New and expanded school and nursery facilities or those changing to a free school or an academy;
- Mixed uses or accretion of developments where individual scheme elements are below the thresholds, but which in combination are considered to have significant transport or traffic implications; or
- Where a Travel Plan would help address a specific local traffic problem, which might otherwise result in a highways objection to the planning application on local traffic grounds, or where there is inadequate transport infrastructure in the area.

- 6.6.2 Planning applications seeking an increase in car parking will be required to demonstrate that a Travel Plan is in operation and options to manage travel demand have been implemented.
- 6.6.3 Highways England, as the body responsible for the safe and efficient operation of the nationally significant Strategic Road Network, are a statutory consultee within the planning process. In accordance with Department for Transport (DfT) Circular 02/2013 'The Strategic Road Network and the Delivery of Sustainable Development', Highways England may also request the implementation of a Travel Plan to reduce the impact of a development on the Strategic Road Network.
- 6.6.4 Paragraph 33 of the Circular states that "only after travel plan and demand management measures have been fully explored and applied will capacity enhancement measures be considered". It is therefore recommended that developers engage with Highways England throughout the process and from the earliest stage to ensure that the needs of Circular 02/2013 are satisfied.

Table 6.1 Indicative thresholds for Travel Plans and Travel Plan Statements by Land Use Class

Use Class		Threshold for Travel Plan Statement	Threshold for Travel Plan
General Industrial	B2	2,500-4,000m ²	> 4,000m ²
Storage or distribution	B8	3,000-5,000m ²	> 5,000m ²
Hotels	C1	75-100 rooms	>100 rooms
Residential institutions (hospitals, nursing homes)	C2	30-50 beds	> 50 beds
Residential institutions (education)	C2	50-150 students	> 150 students
Residential institutions (institutional hostels)	C2	250-400 residents	> 400 residents
Dwelling houses	C3	20-40 dwellings	> 40 dwellings
Food retail	E(a)	250-800m ²	> 800m²
Non-food retail	E(a)	800-1,500m ²	> 1,500m ²
Restaurants and cafes	E(b)	300-2,500m ²	> 2,500m ²
Financial and professional services	E(c)	1,000-2,500m ²	> 2,500m ²
Assembly and Leisure	E(d) F2(c-d)	500-1,500m ²	> 1,500m²
Business (Offices, Research & Development, light industry)	E (g;i,ii,iii)	1,500-2,500m ²	> 2,500m ²
Non-residential institutions	F1	500-1,000m ²	> 1,000m ²
Others	Sui Generis	Discuss with authority	Discuss with authority

Source: Adapted from 2009 DfT guidance (with exception of 'Dwelling Houses' (C3) and 'Business (Offices, R&D, light industry') - (E(g;i,ii,iii)) which are benchmarked against lower bounds adopted elsewhere).

6.6.5 The Travel Plan definitions in Section 6.4 provide guidance as to which type of Travel Plan is appropriate for a variety of developments. However, it is recommended that the final Travel Plan requirements for any development are agreed with the Council at the scoping / preapplication stage.

6.7 What Do I Need to Include?

- 6.7.1 When preparing a Travel Plan, applicants must consider the particular needs and desired travel outcomes for the site. Focussing on outcomes means the Travel Plan is performance-led, requiring it to achieve defined objectives through appropriate measures that help deliver the desired outcome over a defined time. This approach provides flexibility in implementation, with actions and measures suited to meet the particular needs of the site or address a specific issue. The focus on outcomes is reinforced through the monitoring and review process in the event that remedial actions are deemed necessary for the Travel Plan to deliver the agreed performance (see Section 6.10).
- 6.7.2 For most developments a five-year time frame for the Travel Plan is required. For larger developments and those with multiple phases a longer period may be necessary e.g. for a development taking a number of years to construct and occupy, a five-year period from final occupation would be appropriate. Therefore, the time frame will be defined and agreed for individual developments.
- 6.7.3 The Travel Plan should include the following key elements, with details appropriate to the scale and nature of the site and development proposals:
- Site description, including location, accessibility by all modes, size and nature of development;
- 2. Survey and baseline modal spilt data;
- 3. Objectives and targets;
- 4. Details of proposed measures, budget and campaigns within an action plan;
- Management arrangements;
- 6. Marketing and communication strategy,

- including appropriate user group(s) differentiation;
- Monitoring and review proposals; and
- 8. Costed action plan for implementation.
- 6.7.4 A checklist to support the production of Travel Plans can be found at Appendix F to ensure that it meets the Councils' expectations. The checklist must be submitted for review alongside the Travel Plan, with comments providing rationale for any aspects not completed, where appropriate.

Setting Targets

- 6.7.5 Targets are an integral part of the Travel Plan process and will be dependent upon the site. Targets must be 'SMART' Specific, Measurable, Achievable, Realistic and Time-Bound.
- 6.7.6 A typical outcome-based target will identify the maximum number of vehicle trips to be generated by the site as a proportion of all trips (modal share). This is different from a target which identifies a reduction in car use over a defined time period from a real or hypothetical baseline. Data for defining such a target should come from the Transport Assessment (TA)2, a site-specific survey, TRICS or census data and the methodology and target must be agreed with the Council. Where such data is used, it is expected that baseline data is collected within three months of first occupation and used to validate the agreed targets (see Section 6.10), although a different time frame may be agreed.
- 6.7.7 Other targets may be appropriate and relate to non-quantifiable actions that will be achieved. Typical action-based targets include the commitment to appoint a Travel Plan Coordinator, deliver Travel Information Packs, or install secure cycle parking.
- 6.7.8 The target should reflect the situation the Travel Plan is seeking to achieve by the end of the defined plan period (typically year five). Setting interim targets can be helpful to help track progress of the Travel Plan, especially where the Travel Plan involves multiple development phases over a longer period of time.

² A clear link exists between a TA and the preparation of the Travel Plan and its proposals to mitigate and manage those issues. Despite this relationship, it is important that the TA and TP are separate, independent documents.

6.7.9 The Council will assess progress against targets as part of the monitoring and review process. It is recognised that Travel Plans are a process and that targets may need to be revised in agreement with the Council as part of the review process if they are determined to have been too challenging, not ambitious enough, or that measures have not worked as anticipated.

Selecting Actions / Measures

- 6.7.10 The selection of actions and measures in the Travel Plan will reflect the specific requirements of the site to achieve the stated outcome(s). Measures will be expected to enable, support and advantage travel by active and sustainable modes.
- 6.7.11 Appendix F presents potential measures which can be used to achieve mode shift, although the choice of specific measures will need to be bespoke for the context and outcomes sought. These measures will need to be complimentary to the development, and realistic in terms of the outcomes that they are hoping to achieve.

Action Plan and Financial Commitment

6.7.12 Travel Plans are a management tool that require financial commitment to achieve meaningful success. It is expected that Travel Plans will include a costed action plan, providing an indicative budget associated with delivery of the proposals. Inclusion of a budget provides affirmation that the applicant has considered the financial commitment required to deliver the Travel Plan. These costs will be aligned with the bond, if sought, to provide delivery assurance.

Legacy Management

6.7.13 Travel Plans should consider their longevity beyond the defined period required by planning, including establishing a culture and legacy of resources which could allow continuation on a voluntary basis by a community group, management company, or organisation.

6.8 Travel Plan Delivery Options

- 6.8.1 Whilst developers will be responsible for the production of a Travel Plan for approval as part of the planning application process, two options are available for the implementation of approved Travel Plans:
- 1. The Council will be fully responsible for managing and implementing the Travel Plan on behalf of the developer, in return for a set contribution. This is available for C3 residential and E(g;i,ii,iii) business development only; or
- 2. Developer / owner is responsible for funding, managing and implementing the Travel Plan, alongside a non-refundable Monitoring Fee and a bond. The value of the bond is determined by the projected costs of implementation for the travel plan. The bond acts as a guarantee in case of non-delivery of the agreed Travel Plan, enabling the Council to implement remedial measures if the developer / owner does not comply with the agreement. The bond is repayable on successful completion of the Travel Plan.

Option 1: Council Delivery

- 6.8.2 Under Option 1, the Council absorbs all risk and would be fully responsible for managing and implementing the Travel Plan on behalf of the developer. This option requires a "per dwelling" (for residential) or "per square metre" (for employment) contribution, which will be secured by a Section 106 agreement. The delivery fee includes all monitoring costs, so the developer will not be required to pay an additional Monitoring Fee as part of this option. This option is only available for C3 residential and E(g;i,ii,iii) business.
- 6.8.3 This option removes any responsibility from the developer / owner for the implementation of the Travel Plan, with the exception of 'hard' infrastructure measures (such as active travel links or cycle parking) or funding of public transport services, which will be identified through the TA. These measures will be secured by a separate agreement.

6.8.4 The activities undertaken by the Council would include the appointment of a designated Travel Plan Coordinator, provision of incentives and the implementation of remedial measures in the event that they are deemed necessary. The delivery fee will only cover reasonable costs incurred by the Council in fulfilling such activities. The fees set out in Option 1 only include for implementation of an agreed Travel Plan, and not for professional time producing the Travel Plan itself. Selection of the Option 1 delivery mechanism does not diminish the developer's responsibility to produce a good quality Travel Plan for agreement through the planning process.

6.8.5 The Council reserves the right not to undertake Travel Plan delivery on behalf of the developer / owner.

Option 2: Developer / Owner Delivery

6.8.6 Under Option 2, the developer / owner retains responsibility for funding, managing and implementing the agreed Travel Plan. Activities undertaken by the developer / owner would include the appointment of a designated Travel Plan Coordinator, provision of incentives, production of monitoring reports for the Council to review and the implementation of remedial measures in the event that they are deemed necessary.

6.8.7 In addition to the developer / owner funding and implementing the Travel Plan, this option requires payment of a non-refundable monitoring fee and a bond. For developments phased beyond a five-year period, further monitoring fees would be required.

6.8.8 The value of the bond would be calculated following the same method as for full Council implementation. The bond is repayable on successful completion of the Travel Plan or retained by the Council to implement remedial measures if the developer / owner does not comply with the agreement.

6.9 Costs and Fees

6.9.1 Table 6.2 outlines the indicative "per dwelling" (for residential) and "per square metre" (for business employment) fees for each option, alongside a worked example for both types of development. Fees will be linked to the Retail Price Index for the duration of their applicability to implementation of the Travel Plan (base April 2021).

6.9.2 The "per dwelling" (for residential) or "per square metre" (for business employment) delivery fees have been calculated using costs for measures that would be required to enable sustainable access to a typical development, over a proposed five-year delivery period. The employment cost calculations have converted the cost per employee to a square metre cost using the HCA employment densities table.

6.9.3 Option 2 bond / deposit costs for the different land uses can be found at Appendix F.

Table 6.2 Travel Plan Fees and Example

Use Class Fee Components	Option 1	Option 2
C3 Residential	Delivery Fee: £775 per dwelling	Bond: £775 per dwelling + Non-refundable monitoring fee: £4,775
E (g;i) Business (Offices)	Delivery Fee: £38 per m² (Gross Floor Area) ³	Bond / deposit: £38 per m² (Gross Floor Area) + Non-refundable monitoring fee: £4,775
		· · · · ·
Worked Example	Option 1	Option 2
	Option 1 £77,500	

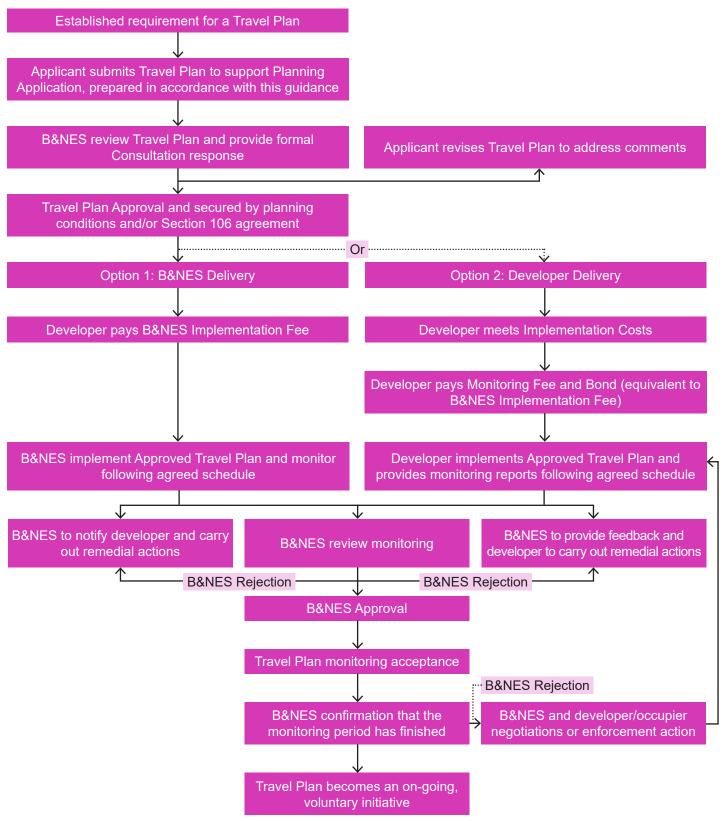
³ This equates to c. £450 for each FTE.

6.10 Approval, Securing, Monitoring and Review

Process Overview

6.10.1 Process for Travel Plan Approval, Securing, Monitoring and Reviewoutlines the process by which Travel Plans will be approved, secured, monitored and delivered. It summarises the responsibilities of the applicant / developer / occupier, depending upon the chosen delivery option.

Figure 6.2 Process for Travel Plan Approval, Securing, Monitoring and Review



Travel Plan - Planning Stage Approval

6.10.2 The Council will evaluate all planning stage Travel Plan submissions using a checklist of the key elements expected in the Travel Plan and consideration of these elements and the robustness of the arrangements within the Travel Plan for their implementation. This enables a succinct assessment of whether the Travel Plan can be expected to be effective to achieve the specified outcomes. Expectations for different types of Travel Plan are outlined below.

Full Travel Plan

Full detail expected, applicable to the specific site.

Interim Travel Plan

Each key element should be included in the document although some elements may be provisional, with commitment to update in the Full Travel Plan, and there may be less detail overall.

Framework Travel Plan

Should set out the principles for the site and set out what individual occupiers will need in their Travel Plans, how and when they will be developed and who will be responsible for them and the overall Framework Travel Plan. Should include appropriate levels of detail for land uses where occupiers or known and unknown as per Full and Interim TPs. Should clearly show overarching site-wide management arrangements.

Small Sites / Travel Plan Statement

For smaller developments, relevant elements should be included, recognising that measures and other interventions will be limited.

- 6.10.3 Applicants should ensure that the Travel Plan has been produced in accordance with this guidance and a checklist is provided in Appendix F for applicants to complete and submit with their Travel Plan at application. The checklist is intended to aid preparation of the Travel Plan document and reduce the potential for delay caused by incomplete or inadequate proposals. Completion and submission of the checklist is mandatory for all applications but does not guarantee approval of the Travel Plan.
- 6.10.4 The Travel Plan should be prepared as a standalone document. It may be desirable to identify issues from the TA; however, the Travel Plan should focus on implementation and action; how issues are to be addressed to enable and enhance accessibility to the site by all modes.

Modeshift STARS

- 6.10.5 The Council uses a system called STARS to aid development and monitoring of Travel Plans. It is an online platform used widely across the country, providing a travel planning tool that:
- Aids the creation and development of the Travel Plan; and
- Provides a simple process for monitoring and evaluation.
- 6.10.6 The use of STARS is free to developers / occupiers. It simplifies and provides efficiencies through the ability to collect data and information about a site and can be easily access and updated at any time and enables ongoing monitoring, review and improvement for the lifecycle of the Travel Plan.
- 6.10.7 STARS also offers national accreditation for organisations that demonstrate best practice in the implementation of their Travel Plan. Accreditation allows progression from Bronze through Silver to Gold, with Silver and Gold available for sites that achieve a reduction in single-occupancy car journeys associated with their site.
- 6.10.8 STARS works as follows:
- 1. Visit https://www.modeshiftstars.org
- 2. Select 'Contact / Register' at the top right corner of the page.
- On the registration page, enter your name, email and Local Authority Area (these fields are mandatory), and include request to register.
- 6.10.9 Once registered, you will be able to access the system and work on your Travel Plan.



6.11 How Travel Plans are Secured

- 6.11.1 Travel Plans will be secured through either a planning obligation or planning condition. The appropriate legal mechanism will be considered on a site by site basis, with the intention of providing confidence amongst all parties that the Travel Plan will be fulfilled.
- 6.11.2 The majority of Travel Plans will be secured through a planning obligation. This is a form of planning agreement under Section 106 of the Town and Country Planning Act 1990. Section 106 agreements allow all elements of the Travel Plan to be secured, reflecting the complexity of implementation, monitoring and the process for agreeing corrective measures where outcomes are not being achieved. They also allow money to be paid whereas planning conditions do not. Planning obligations run with the land, are legally binding and enforceable.
- 6.11.3 The use of planning obligations to secure Travel Plans will be determined against the three criteria stated in Regulation 122(2) of The Community Infrastructure Levy Regulations 2010. These criteria state that the obligation must be:
- 1. Necessary to make the development acceptable in planning terms;
- 2. Directly related to the development; and
- 3. Fairly and reasonably related in scale and kind to the development.
- 6.11.4 In some circumstances a planning condition may be used to secure a particular element of the Travel Plan or Travel Plan Statement. For example, conditions may be applicable for individual items such as secure cycle parking at a smaller development site.
- 6.11.5 In either case, model clauses or conditions are provided in Appendix F.



6.12 Monitoring and Review Activities

- 6.12.1 Monitoring and review is an essential part of the Travel Plan process to measure the effectiveness of the Travel Plan. The Council will use this to assess whether the Travel Plan is meeting the outcomes agreed with the planning obligation or condition.
- 6.12.2 The Travel Plan needs to set out what data and information is to be collected and when the appropriate surveys will be carried out. This will need to be linked to how baseline information is to be collected and used in the establishment of the targets. For Interim Travel Plans it is expected that baseline data is collected within 3 months of first occupation and used to validate the agreed targets, although a different time frame may be agreed, such as where development completions and occupations are phased or where long-term traffic impacts are anticipated. In such cases an appropriate level of completion / occupations will be defined and agreed in the Travel Plan.
- 6.12.3 Monitoring will be required bi-annually, in Years One, Three and Five after first occupation. For Travel Plans with longer defined time periods, monitoring will be required bi-annually for the duration of the agreed plan period.
- 6.12.4 The developer / occupier is responsible for monitoring and the preparation and submission of the report, unless delivery Option 1 is chosen, which should provide as a minimum:
- A summary of the monitoring results including details of the travel survey, traffic counts (such as volumes, classification), uptake of measures (such as vouchers) and activities undertaken;
- Progress on implementation in the monitoring period. This should consider actions achieved and progress against targets set in the Travel Plan, and assess whether they have been met: and
- Activities for action and priority items for the coming period.
- 6.12.5 As referenced above, Modeshift STARS is a good resource for Travel Plan monitoring, which developers are encouraged to use.

- 6.12.6 Where targets are not being realised this should be addressed in the report with an assessment of the contributory factors and planned remedial actions.
- 6.12.7 The monitoring report will be reviewed by the Council and discussed with the developer / occupier for approval of any proposed changes to achieve the agreed targets and outcomes. This is intended to provide the flexibility to adjust or revise the Travel Plan and reduce the need to proceed to enforcement action. As travel planning is an iterative process, it is expected that the Travel Plan document, especially the action plan, will be updated to reflect the outcome agreed from the monitoring and review process and the revised Travel Plan provided to the Council.
- 6.12.8 At Year Five (or end of the agreed plan period if different), where targets are being achieved then the Travel Plan becomes a voluntary undertaking; an updated Travel Plan will be required every three years but there will be no further obligation for submitting monitoring reports to the Council. At this point, the obligation will be discharged, and any residual bond monies returned to the developer.
- 6.12.9 Where the Travel Plan is not meeting its target(s) the monitoring period will continue until targets are achieved. The duration of this additional monitoring will be at the discretion of the Council and be proportionate to the degree of non-performance and commitment of the developer / occupier to resolve the issue.

Monitoring Fees

- 6.12.10 A Travel Plan Monitoring Fee will be payable to the Council to fund the ongoing monitoring, evaluation and review of the Travel Plan. The fee of £4,775 will cover reasonable costs incurred by the Council in fulfilling monitoring requirements (Appendix F). The fees are indicative and will vary from site to site, depending upon elements such as the length of monitoring period or requirement to undertake additional site visit(s).
- 6.12.11 The Travel Plan Monitoring Fee does not cover and is separate to the provision or implementation of other measures forming part of the content of the Travel Plan. In all cases, the Council reserves the right to carry out a sample survey itself, or request an independent

- audit of data collected, to ensure that monitoring is being carried out correctly at the developer's or owner's expense.
- 6.12.12 Fees will be linked to the Retail Price Index for the duration of their applicability to monitoring of the Travel Plan.

6.13 Remedial Actions and Enforcement

- 6.13.1 The Travel Plan will outline the default mechanisms and remedial actions that will be undertaken if the Travel Plan is not achieving the agreed outcomes. Travel Plan implementation failures generally fall into two main categories:
- 1. An agreed action has not been found or reported as being complete; and / or
- 2. An agreed target has been missed, such as a mode share target.
- 6.13.2 In the event that shortcomings in Travel Plan performance are identified, negotiations between the Council and the developer / occupier / Travel Plan Coordinator will take place in the first instance. This approach is preferred as it enables a systematic discussion to ascertain why shortcomings have occurred and whether an amendment to the Travel Plan is appropriate. It also subsequently allows mutually agreeable remedial activities to be implemented, if necessary. All remedial activities will be proportionate and correspond to the nature, scale and severity of transport impacts associated with the performance shortcoming.
- 6.13.3 Under Option 2, if the Council is required to undertake monitoring activities or implement measures to achieve the agreed targets, the developer may be required to cover the associated costs. These costs would be drawn from the use of a bond where appropriate. The value of the bond would be calculated following the same method as for full Council implementation (Option 1; see Table 6.2).
- 6.13.4 Where negotiations fail to achieve a satisfactory resolution, formal enforcement action will then be considered by the Council. The enforcement process will vary dependent upon the legal mechanism by which the Travel Plan has been secured, as well as the specific details contained within the obligation / condition.

6.13.5 In the event that there is disagreement between the Council and the owner / developer in regard to whether a Travel Plan has reached the appropriate quality, actions have been implemented or targets reached, then an independent arbitrator will be appointed. The arbitrator will be competent in legal terms, a professional with knowledge of travel planning and agreed by both parties. The opinion, including the allocation of costs, expressed by the independent arbitrator will be binding on both parties.

Planning Obligation	Planning Condition
Injunction Proceedings pursuant to Section 106 (5) of the Town and Country Planning Act 1990, dependent upon the specific terms of the obligations contained in the Agreement and the scale of the non-compliance when	The Council issue a: Breach of Condition Notice pursuant to Section 187A of the Town and Country Planning Act 1990; or
weighed against the remedy sought 1. the Council serve written notice of non-compliance to the developer / occupier, demanding Travel Plan implementation within 28 days	Breach of Condition Enforcement Notice pursuant to Section 172 of the Town and Country Planning Act 1990.
Agreement between the Council and developer / occupier of suitable remedial measures and binding implementation timetable	
If the developer / occupier fails to comply with 1) or 2) above, the Council will commence formal legal action against the developer / occupier for non-compliance with the Section 106 agreement	

6.14 Contacts and Further Information

6.14.1 For further information and advice, please contact:

Travel Plan Team	Transport Development Management
Strategy and Performance	Planning Services
First Floor	Lewis House
The Guildhall	Manvers Street
High Street	Bath
Bath	BA1 1JG
BA1 5AW	
	Telephone: 01225 394041
Email: transportation@bathnes.gov.uk	Email: development_management@bathnes.

Helpful Resources:

http://www.bathnes.gov.uk/BathCAZ

https://www.bathnes.gov.uk/services/environment/pollution/air-quality

https://www.modeshiftstars.org/

Glossary

Accessibility

Refers to a measure of the ease of reaching (and interacting with) destinations or activities distributed in space. A place with "high accessibility" is one from which many destinations can be reached, or destinations can be reached with relative ease, and are inclusive for all users.

Active travel

The movement of people or goods by human physical activity; primarily it refers to walking and cycling, but also includes related modes such as scooting and wheelchair or pushchair use.

Air Quality Management Area

An area where air pollution levels have exceeded the national air quality objectives.

Baseline

Data used to establish the initial modal share and travel behaviour for a site; this is used to compare subsequent data acquired afterwards. It serves as the basis for assessing change achieved by the travel plan.

Car Club

Car club cars are parked in designated bays across a city and can be booked remotely. Vehicles can be rented by the hour with no extra costs for insurance, petrol and maintenance.

Car Free

Relating to developments where parking is not provided on site or there is limited parking separated from the residence, providing a traffic free environment and enabling residents to live without owning a car.

Chargepoint

A unit, or location whereby a ULEV can be supplied with suitable charge with associated facilities.

Clean Air Zone

Introduced by Local Authorities to discourage certain vehicle types from entering a designated area prioritised for reductions in air pollution. Charges are in place for vehicles driving into a Clean Air Zone, which exceed emission standards.

Climate Emergency

A declaration made by governments and scientists in which urgent action is required to reduce or halt climate change in order to avoid potentially irreversible environmental damage resulting from it.

Controlled Parking Zones

Areas where parking controls are introduced to protect the parking needs of residents and their visitors, as well as those of local businesses.

Developer

The organisation or individual(s) responsible for delivering a development.

Development

Any development requiring planning permission, be that a new development, an extension of an existing building or a change of use. **First Occupation**

Date of first use of a development site by occupiers.

Greenhouse Gas Emissions

Greenhouse gases vented to the Earth's atmosphere causing the climate to warm by trapping heat from the Sun in the Earth's atmosphere. The primary greenhouse gases in Earth's atmosphere are water vapour, carbon dioxide, methane, nitrous oxide, and ozone.

Green Infrastructure

Green infrastructure is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation.

Houses in Multiple Occupation

Refer to any dwelling containing three or more people from separate 'households' who share common facilities such as a kitchen and bathrooms.

Infrastructure (Walking & Cycling)

Relates to infrastructure that supports and promotes the use of walking and cycling modes. This can include active travel routes, footways, cycle lanes and cycle parking.

Internal Combustion Engine

An engine which generates motive power by the burning of petrol, oil, or other fuel with air inside the engine.

Micro-mobility

A range of small, lightweight vehicles operating at speeds typically below 25km/h and driven by users personally. Devices include bicycles, e-bikes, electric scooters, electric skateboards, shared bicycles, and electric pedal assisted bicycles.

Modal share (also called modal split, mode share or mode split)

The modal share is the percentage of travellers using a particular type of transportation. For travel plans, a primary concern is a reduction in the modal share of car use as a proportion of all trips to a site.

Mode Shift (or modal shift / mode change)

Changes in travel habits, towards more sustainable modes, as a result of increased provision / travel incentives.

Natural Surveillance

Natural surveillance occurs by designing the placement of physical features, activities and people in such a way as to maximize visibility and foster positive social interaction.

Occupier

The user of a building. The occupier may rent or own the building(s) they use.

Overspill Parking

Overspill parking is the parking of vehicles beyond a defined area specifically designed for this purpose. It can occur because provided parking spaces are insufficient for demand or considered unsatisfactory, and may have unintended consequences on its surroundings.

Planning condition

A condition imposed on a grant of planning permission (in accordance with the Town and Country Planning Act 1990) or a condition included in a Local Development Order or Neighbourhood Development Order.

Planning Obligation (Section 106)

A legal agreement entered into under section 106 of the Town and Country Planning Act 1990 to mitigate the impacts of a development proposal. Planning obligations are commonly referred to as 'Section 106', 'S106', as well as 'developer contributions.' Planning obligations run with the land, are legally binding and enforceable.

Powered Two-Wheelers

Refers to the more commonly known motorcycles and scooters. Whilst motorised, PTWs represent a sustainable alternative to private car usage and should be provided for.

Public Rights of Way

Public rights of way allow the public to walk, or sometimes ride, cycle or drive, along specific routes over land which belongs to someone else – the land itself is often privately owned.

Remedial activity

An activity, including implementation of a measure undertaken to address a failure in travel plan delivery to achieve agreed outcomes. It may involve payment of a bond as a failsafe to deliver the travel plan in the event of non-delivery by the developer.

Single Occupancy Vehicle

A trip made by a motor vehicle occupied by one individual.

Supplementary Planning Documents

Documents which add further detail to the policies in the development plan. They are used to provide further guidance for development on specific sites, or on particular issues. Supplementary planning documents are capable of being a material consideration in planning decisions but are not part of the development plan.

Sustainable Development

Sustainable development practices help areas grow in ways that adapt to the challenges posed by climate change, which will in turn help to protect important natural resources for current and future generations.

Sustainable Transport Modes

Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, low and ultra-low emission vehicles, car sharing and public transport.

Swept Path Analysis

The calculation and analysis of the movement and path of different parts of a vehicle when undertaking a turning manoeuvre.

Topography

Describes the physical features of an area of land, typically relating to the various elevations of an area using a topographical map.

Traffic Regulation Order

Legal process to make alterations to the highway. Can be applied to stationary vehicles (i.e. parking controls) or moving vehicles (i.e. speed restrictions, vehicle restrictions).

Travel Plan Coordinator

The Travel Plan Coordinator is responsible for the day to day running, promotion and implementation of a Travel Plan, as well as liaison with the Local Planning Authority.

Ultra-Low Emission Vehicles

Currently defined as vehicles emitting less than 75 grams of carbon dioxide per kilometre from the tailpipe.

Voluntary Travel Plan

A travel plan prepared or operated by an organisation of a particular site that is not connected with development proposals and/or an associated planning application.

Wayfinding

Refers to information systems that guide people through a physical environment and enhance their understanding and experience of the space. In these often high-stress environments, effective wayfinding systems contribute to a sense of well-being, safety, and security.

Bibliography

Avila-Palencia I, de Nazelle A, Cole-Hunter T, et al. (2017) The relationship between bicycle commuting and perceived stress: a cross-sectional study. BMJ Open 7, 013542.

Bates, J. and Leibling, D. (2012) Spaced Out – Perspectives on parking policy. RAC Foundation.

BSI (2018) Design of an accessible and inclusive built environment, Part 1: External environment – Code of Practice.

BuroHappold Engineering (2017) Bath and North East Somerset Parking Strategy 0335958-TN01-00-Benchmarking and UK Parking Best Practice.

Carmona M, Gabrieli T, Hickman R, et, al. (2018) Street appeal: The value of street improvements. UCL Discovery.

Chartered Institute of Highways & Transportation (2012) Guidance Note: Residential Parking.

Crystal Market Research (2019) Bath and North East Somerset Parking Policy Review – Student, HMO and New Housing Development Research.

CycleScheme (2015) Work hangover

Deloitte (2014) Deloitte Millennial Survey.

Department for Transport (2005) Inclusive Mobility

Department for Transport (2008) Research into the Use and Effectiveness of Maximum Parking Standards.

Department for Transport (2009) Good Practice Guidelines: Delivering Travel Plans through the Planning Process.

Department for Transport Circular 02/2013 (2013) The Strategic Road Network and the Delivery of Sustainable Development.

Department for Transport (2014) Cycling Delivery Plan.

Department for Transport (2016) The Traffic Signs Regulations and General Directions 2016.

Department for Transport / Office for Low Emission Vehicles (2019) Electric vehicle chargepoints in residential and non-residential buildings. Closed Consultation, [via https://www.gov.uk/government/consultations/electric-vehicle-chargepoints-in-residential-and-non-residential-buildings]

Department for Transport (2020) Cycle Infrastructure Design - Local Transport Note 1/20.

Department for Transport (2020) Gear Change: A bold vision for cycling and walking.

Department for Transport (2020) Cycling Infrastructure Design: Local Transport Note 1/20. Goodman et. al. (2019) Scenarios of cycling to school in England and associated health and carbon impacts: Application of the 'Propensity to Cycle Tool', Journal of Transport & Health, 12, pp. 263-278.

Department for Transport (2020) Pavement parking: options for change. Closed consultation. [Accessed 03/06/2020 via: <a href="https://www.gov.uk/government/consultations/managing-pavement-parking/pavement-parking-pavement-p

Department for Transport Statistics, Table VEH015: Licensed vehicles at the end of the year by body type and upper and lower tier local authority, including diesel cars and vans, United Kingdom, 2011-2020.

Department for Transport Statistics, Table VEH0202: Licensed cars at the end of the year by keepership (private and company), Great Britain from 1994; also United Kingdom from 2014.

Goodman et al. (2016) Scenarios of cycling to school in England, and associated health and carbon impacts: Application of the 'Propensity to Cycle Tool'. Journal of Transport & Health. 12. Pp. 263-278.

HM Government (2015) The Building Regulations 2010 – Approved Document M: Access to and use of buildings.

Jacobs (2020) Low Traffic Neighbourhood Strategy Bath and North East Somerset.

Lawlor, E (2013) The pedestrian pound. Just Economics for Living Streets.

Lovelace et. al. (2017) The Propensity to Cycle Tool: An open source online system for sustainable transport planning, Journal of Transport and Land Use, 10, 1.

Modeshift STARS [accessed 07/07/21 via https://www.modeshiftstars.org]

Office of National Statistics (2020), Estimated number of households in the local and unitary authorities of England and Wales, Council areas of Scotland, and local government districts of Northern Ireland, 2012-2018.

Public Health England (2016) Working Together to Promote Active Travel: A briefing for local authorities.

Public Health England (2019) Review of interventions to improve outdoor air quality and public health.

Public Health England (2020) Air pollution: applying All Our Health. [Accessed 25/05/2021 via: https://www.gov.uk/government/publications/air-pollution-applying-all-our-health]

Public Health England, Public Health Outcomes Framework. [Accessed 25/05/2021 via: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework]

Raje F. and Saffrey, A. (2016) The value of cycling. University of Birmingham and Phil Jones Associates for Department of Transport.

Sport England, Active Lives. [Accessed 25/05/2021 via https://www.sportengland.org/know-your-audience/data/active-lives]

Steer (2018) England & Wales Car Club Annual Survey 2017/18. CoMoUK.

Steer Davies Gleave (2017) Carplus Annual Survey of Car Clubs 2016/17.

Surrey County Council (2018) Guidance on car clubs in new developments – Draft.

Sustrans (2017) The Role of Active Travel in Improving Health – Toolkit Part 1: How active travel can improve health and wellbeing in the workforce.

Transport for London (2013) Town Centres.

Transport for London (2014) London Cycling Design Standards.

Transport for London (2016) Town Centres.

Transport for London (2017) Healthy Streets for London.

Transport for London, Healthy Streets. [Accessed 25/05/2021 via https://tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/healthy-streets#on-this-page-0]

Transport for London (2010), Pedestrian Comfort Guidance for London: Guidance Document.

Travelwest (2020) Travel to Work Survey, [Accessed 07/07/21 via https://travelwest.info/for-businesses/surveys-awards-challenges/previous-years-results#2020-1]

West of England Combined Authority (2020) West of England Ultra-Low Emission Vehicle Policy Statement 2020-2023 (emerging).

Bath & North East Somerset Council

Improving People's Lives

OUR CORE POLICIES



TACKLING THE CLIMATE & ECOLOGICAL EMERGENCY



GIVING PEOPLE A BIGGER SAY







