



PLANNING FOR GROWTH

Sustainable Transport & Parking Standards

Draft Supplementary Planning Document (SPD)

September 2022



Contents

1.	Introduction and background	3
2.	Planning and Transport Policy	4
3.	Parking Standards	12
4.	Design and Layout of Parking Spaces	30
5.	Individual planning applications	34
	Appendix 1: Car ownership in Hertsmere	36
	Appendix 2: Worked Examples	39
	Appendix 3: Accessibility Zones and Methodology	41
	Appendix 4 Parking Stress Surveys	49

1. Introduction and background

- 1.1 The purpose of this document is to set appropriate off-street car and cycle parking standards for different types of development within the borough. Parking can have an impact on the economic vitality of town centres, help manage congestion, influence patterns of development and affect the way people access key services and facilities. Parking is also an important travel demand tool, and reduced parking provision can, in the right circumstances also lead to lower car ownership and use.
- 1.2 It is recognised that insufficient parking can create on-street parking stress and unsafe or obstructive parking, with high levels of frustration for residents and businesses. As such, this Supplementary Planning Document (SPD) seeks to achieve a balance between the potentially conflicting demands created by the demand for sufficient parking space within our communities.
- 1.3 The Council's approach to on-street parking is set out in a separate [Parking Management Strategy](#) that addresses the introduction of new or extended Controlled Parking Zones and other on-street parking restrictions, in addition to the Council's off-street car parks.
- 1.4 This SPD updates the previous Parking Standards SPD published in 2014, and reflects changing national policy and the Council's subsequent declaration of a Climate Emergency in 2019.

2. Planning and Transport Policy

National Planning Policy Framework

- 2.1 The NPPF states that transport issues should be considered from the earliest stages of plan-making. The key guidance relating to travel choice and parking in the NPPF is contained in Section 9, 'Promoting sustainable transport.' Included is a requirement for plan policies to prioritise the use of walking, cycling and public transport and providing high quality walking and cycling networks. In order to facilitate this, active engagement with local highways authorities and other transport infrastructure providers as well as neighbouring councils is encouraged to align strategy and investment.
- 2.2 The NPPF also states that residential car parking standards should be developed with regard to likely levels of car ownership at new developments, the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles. Paragraph 105 sets out that if setting local parking standards for residential and non-residential development, policies should take into account:
- a) the accessibility of the development;
 - b) the type, mix and use of development;
 - c) the availability of and opportunities for public transport;
 - d) local car ownership levels; and
 - e) the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.
- 2.3 Maximum parking standards, where the level of off-street parking is capped, should only be set where there is clear justification that it is necessary for managing the local road network or for optimising the density of development in central and other accessible locations (NPPF paragraph 106). However, authorities should use parking policies, alongside other measures, to promote sustainable transport choices and reduce reliance on the private car.
- 2.4 Local authorities are also expected to improve the quality of car parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists. The NPPF also requires planning policies and decisions to recognise the importance of providing adequate overnight lorry parking facilities, taking into account local shortages (paragraph 107).
- 2.5 In terms of lorry parking, paragraph 109 sets out the relevant considerations to address the shortage of lorry parking spaces, both through plan-making and decision making on applications. This document has a new section on lorry parking designed to help address the shortfall.
- 2.6 When assessing development proposals in the context of parking, part c) of Paragraph 110 relating to design and paragraph 111 relating to highway safety, should also be considered.
- 2.7 There are several aspects to consider relating to parking and sustainable transport options when allocating sites through the local plan, or looking at larger planning applications. These include the promotion of sustainable transport and the safety and design of parking areas.

Planning Practice Guidance

- 2.8 Planning Practice Guidance recommends the use of Travel Plans, Transport Assessments and Statements as part of any justification for releasing land for development that otherwise would be occupied by parking requirements. However, the importance of avoiding penalising motorists and introducing changes that lead to more on-street parking is emphasised. Maximum parking standards are considered to be a key factor in the creation of congested streets.
- 2.9 National guidance encourages local planning authorities to produce a robust transport evidence base to support a shift to more sustainable transport usage. The transport assessment forms an important part of the Local Plan process, with off-street parking requirements playing an important role in addressing the following matters:
- trip generation and the economic, social and environmental impact on the locality
 - opportunities to support development that facilitates/supports the use of sustainable transport modes
 - baseline transport conditions including traffic flows, parking and user demand
 - opportunities to reduce the need for travel
 - the quality and capacity of transport infrastructure, including committed network and public transport improvements, and identification/assessment of key junctions
 - short, medium, and long-term transport proposals
 - safety and accident prevention
 - all current transport issues as they affect all modes as well as cutting across many themes such as accessibility, mobility, safety, congestion, pollution and carbon reduction
 - the potential options to address the issues identified and any gaps in the network
 - the location of proposed land allocations and areas/corridors of development and the potential impacts and how these can be mitigated, including the provision of sustainable transport
 - accessibility of transport nodes such as bus/railway stations

Department for Transport Future of Mobility: Urban Strategy (2019)

- 2.10 This document sets out the approach the government will take to seize the opportunities from the changes happening in urban transport. It sets out the benefits mobility innovation will deliver and the principles to achieve these. Relevant policies include:
- Walking, cycling and active travel must remain the best options for short urban journeys
 - New mobility services must lead the transition to zero emissions
 - Mobility innovation must help to reduce congestion through more efficient use of limited road space

Transport investment strategy- Moving Britain Ahead

- 2.11 The strategy sets out the Government's plan for Britain to build a stronger fairer country, with an economy that works for everyone, in which wealth and opportunity are spread across the country and where we are set up to succeed in the long term.

Through investment we can and must seek to create a more reliable, less congested, and better connected transport network that works for the users who rely on it.

Committee on Climate Change - Net Zero

- 2.12 A number of Government-commissioned reports have highlighted the need to implement proactive measures to combat emissions and climate change in recent years. In 2019, the Committee on Climate Change published **Net Zero: The UK's contribution to stopping global warming**, as a response to a request from the governments of the UK, Wales and Scotland to reassess the country's long-term emissions targets. The report recommends the new target for net zero greenhouse gases by 2050, in line with the Paris Agreement, and how this will be achieved. This also resulted in an amendment to the Climate Change Act 2008 that had previously only committed to reducing net greenhouse gas emissions by at least 80% of their 1990 levels, also by 2050. Net Zero specifically requires that government *must continue to support the strengthening of the charging infrastructure, including for drivers without access to off-street parking*.

Energy White Paper

- 2.13 £2.8bn is proposed to support the switch away from petrol and diesel vehicles by 2030. The UK will end the sale of new petrol and diesel cars and vans by 2030 and scale up electric vehicle charge points with the associated expansion in electricity generation and network capacity which will be required. New Building Regulations are proposed to require electric vehicle charging points in all new homes and residential buildings.

Road to Zero

- 2.14 The Road to Zero Strategy outlines how the government will support the transition to zero emission road transport and reduce emissions from conventional vehicles during the transition. 2040 Mission- All new cars and vans to be effectively zero emission by 2040. As a clear statement of intent to industry and consumers, this government wants to see new cars and vans delivering as many zero emission miles as possible, as fast as possible, starting today.

Cycle Infrastructure Design (Department for Transport)

- 2.15 A design guide was published by the Department for Transport, [Cycle Infrastructure Design](#) in 2020, (Local Transport Note 1/20) covering all aspects of cycling infrastructure, supporting the government cycling and walking strategy. The document includes guidance on both cycle routes and cycle parking, highlighting different types of provision as well as providing its own guidance in terms of the amount of parking required for different types of development. A set of 22 overarching principles are included which emphasise the importance of physically separating cyclists from other traffic and the need for sufficient cycle parking to be provided in the places where people actually want to go.
- 2.16 Where different levels of provision may be appropriate for new development, or when existing provision may be insufficient, the design guide recommends monitoring or surveys which look at the number and location of cycle parking, including 'fly parking' i.e. informal parking of bicycles locking them to street furniture. Regular surveys of the numbers of cycles parked and the locations used can help inform decisions about how much cycle parking to provide in new developments and where additional capacity is required at existing sites. Monitoring and consultation can include survey of existing

public spaces, private spaces and “fly-parking” and engagement with local businesses and organisations to understand patterns of parking and local cycling groups to highlight issues or shortfall, for example.

UK Government Paper- Inclusive Mobility (2005)

- 2.17 This document sets out recommendations for the provision of good access for disabled people, including location and size of parking bays and the percentage of disabled parking bays required by development type.

Hertfordshire Local Transport Plan 4

- 2.18 Hertfordshire County Council’s (HCC) fourth [Local Transport Plan](#) (LTP4) covers the period 2018 to 2031, setting out the vision and strategy for the long-term development of transport in the county and was published in May 2018. A core element of the plan is achieving a modal shift by further improving conditions for sustainable modes of transport such as walking, cycling and passenger transport. These measures are with the intention of reducing traffic growth, reducing environmental impact and improving physical activity and subsequently the health of the population. It also emphasises the need for Local Plans to support their objectives by restricting car use through supply of spaces and parking charges.
- 2.19 In terms of parking, the LPT4 states that proposals should align or be part of local parking policies, so that decisions on parking standards and provision complement efforts to reduce demand for car use. The LTP suggests that, on its own, investment to improve provision for and encourage use of alternative modes of travel to the car will be insufficient to change existing travel behaviour and deliver sufficient modal shift.
- 2.20 Policy 4 (Demand Management) states that greater traffic demand management is essential within urban areas to achieve modal shift and improve sustainable travel provision. The policy states that this can only currently be achieved efficiently and effectively through parking restrictions and charging applied to on-street and off-street parking, including possibly parking at the workplace.
- 2.21 Policy 5 (Development Management) covers the need for new parking provision in new developments to provide facilities for charging electric vehicles, as well as shared mobility solutions such as car clubs and the potential introduction of autonomous vehicles in the future.

Growth and Transport Plans

- 2.22 The South Central Herts Growth & Transport Plan (GTP) is a new transport strategy that covers a large part of the Hertsmere Borough area and supports the countywide LTP4. Amongst other objectives, it seeks to provide a greater choice of alternatives to the private car and encourage sustainable modes of transport, lessening the demand for vehicle parking in the most accessible areas.
- 2.23 There are a number of packages that will benefit Hertsmere. These include :

Potters Bar

- PK17 Hatfield-Potters Bar Cycle Corridor Enhancements, that will develop an active travel corridor between Potters Bar, heading north towards Hatfield, via Brookmans Park and Welham Green;

- PK18 Potters Bar Active Travel Improvements, designed to make Potters Bar a safe, attractive, and convenient place to walk and cycle, and enhance cycle connections to north London; and
-
- PK19 Potters Bar Public Transport Improvements, that will increase the attractiveness of public transport within and beyond Potters Bar, and facilitate interchange between modes of transport within the town centre.

Borehamwood

- PK20 Borehamwood Active Travel Improvements, designed to prioritise the needs of pedestrians, cyclists and public transport users;
- PK21 that will improve connectivity by active travel modes between Borehamwood, Elstree, and the Centennial Park employment area; and
- PK22 Borehamwood-London Connectivity that will maintain and improve connections between Borehamwood and north London.

Radlett

- PK23 Radlett Station Accessibility, which looks to improve accessibility by active modes of transport to Radlett station as a key node for inter-urban journeys.

2.24 The South West Hertfordshire Growth and Transport Plan encompasses Bushey, as well as Watford and nearby areas in Three Rivers borough. There are also a number of relevant packages to Hertsmere including:

- PK 8 Watford South that seeks to enhance the attractiveness of journeys by bike and bus in areas south of Watford and facilitate route options for traffic avoiding Bushey Arches.

Travel Plans Guidance

2.25 National policy and guidance continues to require that all development generating a significant amount of movement should provide a Travel Plan. Travel Plans are defined in national Planning Practice Guidance as 'long-term management strategies for integrating proposals for sustainable travel into the planning process'. The Council will require the submission of a robust Travel Plan in line with the guidance set out in Appendix A of the [Hertfordshire Travel Plan Guidance](#), published in March 2020.

2.26 Travel Plans should deliver a range of measures and incentives to facilitate the use of alternative modes of transport. These measures should be based on a thorough understanding of the actual or projected travel movements of employees, residents and students (for educational establishments). Clear targets should be set to allow the Travel Plan to be monitored and reviewed. In the event that agreed, tangible targets contained in the Plan are not met, enforcement action will be considered by the Council. Appendix C of the Travel Plan Guidance is an evaluation form that lists all aspects that should be considered when formulating a travel plan and Appendix E suggests examples of what measures a Travel Plan may include.

2.27 Further information on employer, school and residential Travel Plans is provided in good practice guidance published by the Department for Transport, available from www.dft.gov.uk Further [guidance](#) on green travel alternatives is also available from Hertfordshire County Council via www.hertfordshire.gov.uk

What does the Supplementary Planning Document (SPD) cover?

- 2.28 The purpose of this SPD is to set appropriate car and cycle parking standards for different types of development within Hertsmere Borough to support the emerging, revised Local Plan. This is important as the application of car parking standards and parking management can have significant influence on car usage and behaviour.
- 2.29 Setting the level of off-street car parking provision can be a delicate balance as there are multiple factors to consider including (but not exclusively):
- the economic vitality of town centres
 - the level of congestion
 - patterns of development and the liveability of various communities
 - access to key services and facilities
 - on-street parking stress and unsafe/obstructive parking
 - carbon emissions and climate change; and
 - the need to encourage the use of more sustainable forms of transport
- 2.30 Furthermore, parking is also an important travel demand tool, and lower parking provision can, in the right circumstances (usually where there is high accessibility to other transport and facilities and a controlled parking zone) lead to lower car ownership and use.
- 2.31 Guidance is presented on the levels of car, cycle and motorcycle parking, disabled and electric vehicle charging provision that should be provided at new developments. Information and advice on design and layout is also given.
- 2.32 Changing priorities in relation to climate change and the need to reduce carbon emissions, coupled with Hertsmere declaring a climate emergency in 2019 means we have to find more innovative and sustainable means of travel. Therefore, this SPD focuses on electric vehicle charging in more detail than previously and provides guidance on this element as well. It also includes initial plans and guidance for car clubs and bike schemes that will contribute towards the overall reduction in pollution and congestion.
- 2.33 The NPPF has also been updated to include consideration of lorry parks. HGV parking along main roads in industrial estates and residential areas has become an issue in recent years, including in parts of this borough and a significant shortfall in lorry parking across the country has been identified by the government¹.
- 2.34 The SPD defines Accessibility Zones in the main towns. These are areas within the Borough where less stringent car parking standards can be applied in appropriate circumstances. This document explains the criteria that will be considered in determining the level of reduction to be applied, which has been further refined prior to this iteration of the document.
- 2.35 The circumstances in which developers will be required to submit a Travel Plan alongside a planning application are also set out. Advice is also provided on the content that should be included in a Travel Plan.

¹ Department of Transport commissioned report: National Survey of lorry parking in 2017.

- 2.36 The SPD provides information on Section 106 legal agreements for highways and transport matters and also sets out guidelines on when the Council will require Transport Assessments to be submitted alongside applications for planning permission.

What are the SPD objectives?

- 2.37 The Core Strategy adopted in 2013 contains 15 objectives for Hertsmere's Local Plan. Of these objectives, the following are identified as being relevant to the Parking Standards SPD:

- To provide the spatial policies necessary to deliver the land use requirements of the Hertsmere Together Community Strategy (Objective 1).
- To raise levels of access by seeking development in locations not dependent on access by car and by requiring the provision of physically accessible transport interchanges and other buildings (Objective 8).
- To promote safe and healthy communities, respecting the diverse needs of the whole Borough (Objective 9).
- To secure efficient land use through well-designed development reflecting the size, pattern and character of settlements in Hertsmere (Objective 14).

- 2.38 In due course, an updated draft Local Plan will be published alongside this revised SPD which will need to contain a series of high level priorities which plan for better public transport, cycling and pedestrian routes and other sustainable transport initiatives including car clubs. Public engagement was previously carried out on a new draft Hertsmere Local Plan (Regulation 18) in autumn/winter 2021. Following this, the council has taken a decision to set aside the current draft Local Plan and await further clarity from central government on policy issues, including the standard method for calculating local housing targets. This guidance may need to be updated when a new Local Plan is published.

- 2.39 It is expected that two additional objectives specific to this updated SPD, which were included in the Regulation 18 draft Local Plan (2021) will need to be reflected in the next iteration of the Local Plan:

- To reduce the carbon emissions of new developments by promoting and providing for alternatives to the private car through the use of Travel Plans and other measures, such as electric vehicle requirements.
- To assist the delivery of objectives identified in the Local Transport Plan 4 for Hertfordshire 2018-2031 and associated programmes and local area plans.

To which Plan policies does the SPD relate?

- 2.40 Current Policy CS25 includes principles on accessibility and parking, stating that proposals for new development will, among a number of criteria, be assessed against the requirements set out in this SPD. Other relevant policies contained in the Core Strategy 2013 include CS24, which covers the location of major development and states that the Parking Standards SPD will contain guidance on Travel Plans, and CS26 that states that new developments should promote alternatives to the private car having regard to the measures set out in this document.

- 2.41 Relevant SADM policies include SADM41 - Highway and Access criteria for New Development, as well as supporting the overall objective of reducing the need to travel promoting accessibility to all modes of transport, particularly cycling, walking and public transport.
- 2.42 The Elstree Way Area Action Plan has its own specific policies for residential development in the area. Paragraphs 3.33 and 3.34 of this SPD clarify how parking provision within the Elstree Way Corridor will be considered.

When should this guidance be applied?

- 2.43 The residential parking standards contained in Section 2 the SPD will apply to all developments requiring planning permission involving the provision of 1 or more residential units (gross). Where applications for prior approval are received, these parking standards will be a material consideration in the assessment of the potential transport and highway impacts of the development.
- 2.44 Applications for extensions and alterations to existing dwellings should ensure that a suitable level of parking provision is made. The standards contained in Section 2 will be used as a guide having regard to the size of the dwelling that is to be created, the impact upon highway safety and the level of provision that already exists on site.
- 2.45 The non-residential parking standards contained in Section 3 of the SPD will apply to all developments requiring planning permission that result in the creation of non-residential floorspace. This includes the extension and alteration of existing non-residential premises and all changes of use. Where applications for prior approval are received, these parking standards will be a material consideration in the assessment of the potential transport and highway impacts of the development, where this is one of the relevant assessment criteria in the General Permitted Development Order.
- 2.46 Where mixed-use, residential and commercial developments are proposed, the parking requirements for each element should be calculated individually using the standards contained in Sections 2 and 3. Where appropriate, the Council will consider the shared use of parking between residential and commercial elements where it can be demonstrated that the relevant standards are met.
- 2.47 The design and layout guidance contained in Section 4 will apply to all development (including extensions and alterations to existing dwellings) where new parking is to be provided or existing parking provision is to be altered.
- 2.48 Proposals for larger schemes, including all Major Developments (as defined in statute) will also be assessed against the criteria and thresholds set out in Section 6 (Section 106 and CIL contributions) and Section 7 (Transport Assessments). Other proposals may need to meet some of the requirements in these sections.
- 2.49 Worked examples are available in Appendix 2 to help with calculating the required spaces for a new development, incorporating car, motorcycle, disabled provision and cycle provision.

3. Parking Standards

- 3.1 Table 1 sets out the Council's residential parking standards. The car parking standards show the required levels of provision in line with advice in the NPPF. The cycle parking standards represent the minimum level of provision. For dwellings that have larger numbers of habitable rooms, additional car parking spaces will be sought. This will also be applied when applications are received to convert garages into habitable rooms within existing dwellings. One bedroom flats and bungalows with three or four other habitable rooms will be treated as two or three bedroom properties for the purposes of calculating off-street parking requirements.
- 3.2 Proposals will be defined as falling within Category I where individual units have self-contained cooking and washing facilities with limited communal facilities and no 24 hour on-site care or support. Proposals containing a more significant range of on-site care and other supporting, communal and care/nursing facilities intended for use by a majority of residents will be treated as falling within Category II. Continuing care retirement and other similar schemes may contain a mix of Category I and II homes with parking requirements based on an assessment of the development type and overall scheme mix.
- 3.3 There will be an initial presumption for the required car parking standard to be applied. Developers proposing car parking above or below these levels should provide robust evidence to support their case. Where necessary, the required level of provision should be rounded to the nearest whole number. Further guidance on the design and layout of parking provision is contained in Section 6.
- 3.4 Whilst communal parking has conventionally been limited to flatted developments, shared, non-curtilage parking areas are increasingly being used for new houses, particularly within larger developments. Where such parking is separated from the house by areas of public realm (e.g. a footpath), the parking should be considered as communal parking for the purposes of assessing off-street parking requirements in Table 1.
- 3.5 The cycle parking standards are taken from the DfT Cycle Infrastructure Design Local Transport Note. There should be 5% set aside for provision of non-standard/accessible cycle parking. This may include trailers family bikes or 3 wheelers. Accessible cycle parking spaces shall be served by a route at least 1,500mm in width and the spaces shall be wider than standard cycle parking spaces. Such spaces could be provided at the end of a rack of cycle parking.

Table 1
Residential Parking Standards

C3 – Residential units*				
	Car parking spaces		Cycle storage spaces	Charging Plug in Points
General Needs Housing (including flats and bungalows)	Curtilage	Communal		
Studio	0.5 per unit		1 per bedroom long term	1 socket/charging point per house with private parking- Communal parking - 1 active charging point per dwelling unit Remaining spaces passive provision over and above 1 space per unit and above 10 units
1 bedroom	0.75 per unit			
2 bedroom	1 per unit	1.5 per unit		
3 bedroom (flat)	1.5 per unit			
3 bedroom (house)	2 per unit	1.5 per unit		
4 bedroom	2 per unit			
5 bedroom	To be determined on a case by case basis			
6 + bedroom				
Additional parking requirements				
HMO	0.5 spaces per bed		1 per bedroom long term	1 socket/charging point per house with private parking or 1 roadside charging point per house where private parking is no available
Houses with additional habitable rooms on upper floors/roofspace	1 per additional habitable room **		1 per bedroom long term	Communal parking 1 in 3 active provision Remaining spaces passive provision
Flats or Bungalows with a total of 6 or more habitable rooms and bedrooms	1 per additional habitable room **			
Houses with 5 or more habitable rooms on the ground or lower ground floor	1 per additional habitable room **			
Specialist housing with support or care				
Category I – Retirement dwellings, no 24 hour warden control, 1 bedroom	1 per unit		1 per 20 units short term 1 per 20 bedrooms long term	1 socket/charging point per unit with private parking- 1 in 5 spaces active provision Remaining spaces passive provision
Category I – Retirement dwellings, no 24 hour warden control, 2 or more bedrooms	1 per unit 1.5 per unit (communal)			
Category II – Supported or extra care, self-contained units (with on-site staff), 1 bedroom	1 per unit for residents and visitors, 0.25 per unit for staff			
Category II – Supported or extra care self-contained units (with on-site staff), 2 or more bedrooms	1 per units for residents and visitors, 0.25 per unit for staff			
Category III – Non self-contained specialist housing including nursing or care homes	To be determined on a case by case basis			

* All spaces to be rounded to the nearest whole number in the case of odd numbers (e.g. 1 x 5 bed HMO, 3 spaces, 3 x 1 bed flats, 2 spaces). For general needs housing, additional visitor parking in larger schemes with communal parking should not exceed 0.2 space per dwelling with 1 disabled visitor space for every 10 visitor spaces.

** All rooms over 8 square metres which are not kitchens, utility rooms, bathrooms, WCs or circulation space are considered to be a habitable room. Large habitable rooms or open plan areas, typically over 25m² and capable of subdivision will be treated as two habitable rooms. Parking requirements for additional habitable rooms on upper floors within townhouses or

dwellings with reversed layouts will be considered on their individual merits but will not typically be sought unless there are three or more additional habitable rooms within the entire property.

Electric Charging Provision

- 3.6 The NPPF states that there needs to be adequate provision for electric vehicles and other low emission vehicles. Due mainly to plummeting battery prices and increasing petrol prices, electric cars are projected to become cheaper than petrol or diesel by between 2023 and 2025, which is likely to lead to their mass adoption. More hybrid electric than diesel vehicles were also registered for the first time in 2021. Further to this, a ban has been announced on the sale of all new petrol and diesel cars by 2030, by which time it is predicted that there will be more electric vehicles than petrol or diesel vehicles on the road. All of this means that for the likely lifetime of the Local Plan, a significant proportion of spaces will need to be actively charged spaces, with that proportion varying on the use of the car park. They will also need to be future-proofed with provision built in through passive charging infrastructure to facilitate the switch to a predominantly electric vehicle market towards the end of the plan period.
- 3.7 Electric charging comes in 3 broad speeds, Level 1 (Slow), Level 2 (Fast) and Level 3 (Rapid) charging, as set out below. There are also different connectors that are not applicable to all types of charger.
1. Type 2 and CCS, an option which includes a Type 2 for slow/fast charging, and a Type 2 Combo (also known as 'CCS') for rapid charging;
 2. Type 1 and CHAdeMO, for slow/fast and rapid charging respectively; and
 3. Tesla Type 2 for rapid charging
- 3.8 The cable that comes with a car will fit the car's socket. At the other end, all standard cables have a 'Type Two' plug, which connects with the universal 'Type Two' sockets found on the latest charging points. Rapid chargers do not have sockets but have the cables built in for connection with the charging point.
- 3.9 Homecharge units can be specified with either a Type 2 socket, or with a cable already attached. Some cars also come with charging cables that connect to a standard 13 amp socket. However, a dedicated homecharge unit is the preferred method of charging at home and will be sought in new residential developments. The design of all electric vehicle charging, including where this is proposed within undercroft or basement parking, must follow other regulatory requirements including those arising from the Building Safety Act 2022. The Risk, Insight, Strategy and Control Authority has published fire safety guidance in relation to electric vehicle charging².
- 3.10 Wireless charging that will involve parking over a pad on the ground and being charged by induction is an emerging market that may eventually become the predominant method of charging. However, despite the technology having being demonstrated and being available, it is yet to have become commercially viable for various reasons. This is another benefit of having sufficient passive infrastructure, as it will be flexible and can be converted either way to charging pillars or wireless pads.
- 3.11 Demand for electric vehicle charging is likely to be concentrated in residential areas, where vehicles are parked the majority of the time i.e. overnight. Therefore, there should be the highest ratio of charging points/ spaces here. Subsequently, there is an additional requirement within the parking requirements for electric charging provision

² <https://www.riscauthority.co.uk/public-resources/documents/resource/rc59-fire-safety-when-charging-electric-vehicles-401>

for different development types to reflect the ambition of the local authority on this matter. Where car parking is communal, there should be active or passive provision for each unit, with a minimum of 20% active charging points. Where development contains very limited or zero off-street parking, such as following the conversion of existing buildings with no off-street parking, the Council will consider seeking s106 contributions towards the provision of on-street electric vehicle charging points and the making of an associated Traffic Regulation Orders required to restrict the use of such spaces to electric vehicles. Such spaces would be required to be available for use by the general public.

- 3.12 Electric charging points and parking for mobility scooters should be provided in new developments in a convenient location at ground floor level where possible. This particularly applies to flatted developments and elderly persons housing where it may be difficult for occupants to charge scooters within the property itself.
- 3.13 Other 'low emission vehicles' at present are mainly hydrogen powered, but they are filled in a similar way to petrol and diesel vehicles at petrol stations. As such, on-site provision is not relevant for the purposes of this SPD.

Car parking for Affordable Housing

- 3.14 The proportion of households owning a vehicle is broadly comparable across tenures in Hertsmere. Data does indicate that the proportion of households with no vehicle is markedly lower for 'social rented'³ housing, whilst the number of such households with two or more vehicles is almost half that of private rented properties and around one third that of owner occupied units.
- 3.15 In mixed-tenure schemes, which comprises the majority of developments delivering Affordable Housing, reduced levels of parking for affordable units can exacerbate any visual differences between the market and non-market elements of a development. As such, parking provision within mixed tenure schemes should typically be made at the same levels across all tenures, as shown in Table 1. Table 1 also provides the basis for off-street parking requirements for schemes that comprise 100% Affordable Housing. Any limited reduction in off-street parking will only be considered where the Registered Provider is able to demonstrate that car ownership levels would not justify the full level of provision; this is only likely to occur in schemes containing a proportion of 1 bed units, particularly in more central locations.

Disabled car parking provision

- 3.16 Where communal parking is proposed over 20 units, 6% minimum of the total number of spaces should be provided for exclusive disabled use, plus 1 space of sufficient dimensions to be used by disabled persons for every 10 units. This should be provided over and above general parking requirements. Requirements for smaller schemes, over and above general parking requirements, are set out in the table below.
- 3.17 The 6% is in line with government guidelines originally published by the Department of Transport and also takes account of the data which shows that there are more wheelchair users in Hertsmere than average across the county (Hertfordshire Transport and Traffic Data report 2019). Disabled spaces should not be allocated to specific units in new schemes unless those dwellings are designed to be fully wheelchair accessible from the outset. All disabled spaces be located on level ground and as close as feasible to the accessible entrance to the building. All parking allocated for wheelchair accessible and self-contained specialist housing should

³ Social rented is the terminology used in the 2011 Census on which the data is based.

incorporate at least one electric vehicle charging point per unit. At least one electric vehicle charging point should also be provided for every five disabled parking bays required within non-residential developments.

Table 2: Disabled car parking provision

Scheme size	Exclusive disabled spaces	Spaces meeting disabled standards
5-10 units	1 space	0
11-20 units	1 space	1 space
21-30 units	6%	+1 space
31-40 units	6%	+2 spaces (+1 for every 10 spaces)

Car parking for Specialist housing with support or care

- 3.18 At least 50% of residents' parking for Category I developments should be of sufficient dimensions to be used by disabled persons. 100% of residents' parking requirement for Category II and III developments should be of sufficient dimensions to be used by disabled persons. Where applicable, the standards for specialist housing may be subject to the accessibility discounts set out below.

Car parking for Motorcycles and other powered two-wheelers

- 3.19 Where communal parking is proposed, major residential applications will be required to make provision for motorcycles and other powered two-wheelers. As a guide, 5% (1 in 20) of the required car parking provision (excluding disabled car parking spaces) should be allocated for motorcycle use.

Accessibility Zones

- 3.20 Accessibility zones have been identified within the principal built areas. The previously stated residential and non-residential accessibility zones have now been updated and consolidated into one easier to use set of zones and are attached to this SPD reflecting the current ground conditions, behavioural changes and the recent accessibility mapping analysis.

Table 3: Accessibility Zone Parking Provisions

Accessibility Zone	Level of maximum car parking provision
Town centre	0 to 40%
Level 1	40 to 60%
Level 2	60 to 80%

*Decimal places will be rounded to the nearest number (each 0.5 rounded up).

- 3.21 Applications for new residential development in these areas should, in particular promote the use of walking, cycling and public transport. In addition, the Council will consider the provision of car parking below the required levels in accessibility zones using the guideline discount ranges set out in Table 3. Where disabled car parking provision is required as a proportion of the overall parking provision, this should not be subject to discounting. Worked examples are provided in Appendix 2.
- 3.22 Discounted car parking levels in accessibility zones will not apply automatically and will need to be subject to justification by the applicant. The required standard will form the starting point for negotiation and the Council will take into account the criteria listed

below in determining whether a discount is acceptable. Worked examples are given in Appendix 2.

- The type, tenure, size and mix of housing;
 - The layout, design and form of parking provision;
 - Whether the road layout is to be adopted and / or designed to adoptable standard;
 - On-street parking conditions and capacity in the surrounding areas including within Controlled Parking Zones outside of restricted hours;
 - Access to existing public or private car parking facilities and the potential for shared parking;
 - Proximity to public transport and services;
 - The level of cycle parking provided; and
 - The provision of mitigating measures
- 3.23 Commercial developments and housing schemes consisting primarily of smaller flats (1 and 2 bed) with shared parking areas are most likely to qualify for a greater reduction in parking provision. Car ownership among predominantly non-family housing has been shown to be lower than average. Communal parking areas will also provide greater scope for differences in car ownership between individual units to be balanced out.
- 3.24 Proposals seeking a discount on sites which are either located immediately adjacent to a lower accessibility zone, or to an area with no accessibility zone must also be accompanied by a parking stress survey. Where a development site covers more than one accessibility zone, the Council will apply any discount based on an average of the overall discount per unit (in the case of residential schemes) or floorspace (in the case of non-residential schemes) within each zone.
- 3.25 The Council will pay particular attention to the overall housing and road layout in considering whether discounting is acceptable. Some developers submit layouts that are not designed to meet adoptable highway standards. These schemes may have narrow estate roads unable to accommodate on-street parking and being private roads, would be difficult to enforce by the Council.
- 3.26 The Council will consider schemes that propose the shared use of existing car parking facilities where this can be reasonably accommodated (e.g. the use of business car parking facilities by residential developments during evenings and weekends). Parking in excess of the stated required standard will exceptionally be permitted on town centre or edge of centre sites where genuine opportunities for shared parking exist.
- 3.27 Where new development or conversions are proposed within or close to an existing Controlled Parking Zone (CPZ), developers should take account of the Council's latest Parking Management Strategy and the fact that there is unlikely to be any additional on-street parking capacity. In particular, the Council will expect all parking requirements to be met on site and parking permits will not normally be issued on these developments, unless there is clear evidence that CPZ bays are under-utilised in restricted hours. Developers are strongly urged to make prospective purchasers of affected new dwellings aware of this and the Council will seek to attach an informative to planning permission to make applicants and other parties aware of this.
- 3.28 In order to qualify for the maximum discount, developments will be expected to provide cycle parking above the minimum required standard for units with more than 1

bedroom. Measures to mitigate against the parking and / or transport impacts of new development may include (but are not limited to):

- On- or off-site highway works to facilitate the use of alternative modes;
- The provision of a Travel Plan;
- Section 106 contributions towards additional sustainable transport measures (including Greenways routes, bike schemes and car clubs); and
- Section 106 contributions towards the development and / or implementation and control of CPZs.

Visitor parking

- 3.29 Typically the greatest demand for visitor parking within residential schemes will be at evenings and weekends. Although this can correspond with times of peak resident parking demand, it is typically offset by other residents being out and by an absence of any commuter parking. As such, on larger developments with unallocated communal parking for residents, there is generally more scope for visitor parking to be accommodated on-site.
- 3.30 There is not considered to be significant need for additional visitor parking to be required over and above the general residential standards set out in Table 1. However, on major application sites (10 or more units) with unallocated parking, particularly in areas of parking stress, visitor parking of up to 0.2 spaces per unit may be sought. Visitor parking for specialist housing and for non-residential developments are set out in Tables 1 and 2.

Car Free Residential Development

- 3.31 A number of existing properties, notably flats above shops in the Borough's main town centres, do not provide car-parking facilities for residents. In Accessibility Zones 1 and 2, there may be a limited number of cases where, subject to compliance with other relevant Local Plan policies, car-free development can be considered acceptable in principle. These may include:
- The extension, alteration or re-use of an existing building with no access to parking;
 - The reversion of a previously converted property to its original residential use including flats above shops;
 - The provision of residential accommodation on a small (up to 5 units net) town centre site that may otherwise not come forwards for development; and
 - Where arrangements are made to share an existing car park within the vicinity of the site that can reasonably accommodate the parking demand generated by the development.
- 3.32 In all instances, developers will be required to demonstrate why car-free development represents the best available option.

Elstree Way Area Action Plan Parking Requirements

- 3.33 The area that makes up the Elstree Way Area Action Plan in Borehamwood is within Accessibility Zones 1 and 2. This would normally mean that between 40% and 80% of the maximum levels of parking provision will be required. Although the Action Plan sets out its own guidance for residential parking, the application of those parking

requirements could result in developments within the Elstree Way Corridor having greater parking provision than equivalent developments elsewhere due to the changes in parking requirements in this SPD. Given the particular emphasis within the NPPF on making the best use of previously developed sites in town centres and other locations well served by public transport, the residential parking standards in this SPD will apply to sites within the area covered by the action plan.

- 3.34 For non-residential development, the guidance in the SPD will also apply as the plan does not set its own standards in respect of non-residential parking.

Table 4: Non-Residential Parking Standards⁴

Unless otherwise stated, floor areas are gross measured externally.

Use Class / Type	Required number of car parking spaces (includes visitor spaces unless otherwise stated)	Minimum cycle parking standard	Electric Vehicle Charging Points
Class E			
Superstores Large supermarkets	1 space per 20m ²	1 s/t space per 100m ² of floor space 1 l/t space per 200m of floorspace	1 in 10 spaces active provision
Retail warehouses Garden centres Other retail uses	1 space per 35 m ²		1 in 4 spaces passive provision
Financial and professional services (Banks, building societies etc.)	1 space per 40 m ² (Town centres) 1 space per 30 m ² (neighbourhood or local centres)	1 s/t space per 200 m ² 1 l/t space per 200m ²	1 in 10 spaces active provision 1 in 5 passive provision (minimum requirement- 5 spaces)
Restaurants and Cafes	1 space per 5 m ² of public floorspace	1 s/t space per 100 m ² 1 l/t space per 100m ²	1 in 10 spaces active provision 1 in 4 spaces passive provision
Offices	1 space per 40m ²	1 s/t space per 1000 m ²	1 in 5 spaces active provision
Research and Development	1 space per 50 m ²	1 l/t space per 200m ² (Office) staff	1 in 2 spaces passive provision
Light industrial	Parking provision for lorries considered on a case by case basis	1 l/t space per 500m ² (Industrial)	
Film and Television Production	1 space per 50 m ² Parking provision for production trucks, trailers and other 'on location' vehicles will be considered on a case by case basis	1 l/t space per 200m ² and 1 s/t space per 1000m ² (for office accommodation and workshop schemes) 1 l/t space per 500m ² (for sound stages)	1 in 5 spaces active provision 1 in 2 spaces passive provision
Day centres	1 space per 9 m ² or 1 space per 4 visitors plus 1 space per FTE staff	1 s/t space per 200m ² 1 l/t space per 200m ²	1 in 10 spaces active provision 1 in 4 spaces passive provision
Surgeries and clinics (including doctors, dentists and vets)	1.5 spaces per consulting room 1 space per FTE non-consultant staff	Greatest of: 1 per 50m ² or 1 per 30 seats/capacity 1 l/t space per 5 staff	1 in 10 spaces active provision 1 in 5 spaces passive provision

⁴ FTE = full time equivalent. s/t = short term. l/t = long term

Parking requirements will be rounded up or down to the nearest whole parking space requirement (e.g. a B8 development of 350m² would be expected to provide 11 car parking spaces, rather than 11.25 spaces).

Use Class / Type	Required number of car parking spaces (includes visitor spaces unless otherwise stated)	Minimum cycle parking standard	Electric Vehicle Charging Points
Nursery schools / playgroups	1 space per 4 pupils	2 l/t space per 10 staff	1 in 5 spaces active provision 1 in 3 spaces passive provision
Class B2			
General industrial up to 250 m ² floorspace	5 spaces plus 1 space per 50m ² . Parking provision for lorries considered on a case by case basis	1s/t space per 1000 m ² 1l/t space per 500m ²	1 in 5 spaces active provision
General industrial over 250 m ²	10 spaces plus 1 space per 75m ² . Parking provision for lorries considered on a case- by case basis.		1 in 2 passive provision
Class B8			
Storage or distribution up to 250 m ² floorspace	1 space per 75m ² . Parking provision for lorries considered on a case by case basis	1s/t space per 1000m ² 1 l/t space per 500m ²	1 in 5 spaces active provision
Storage or distribution over 250 m ² floorspace	10 spaces plus 1 space per 75m ² . Parking provision for lorries considered on a case by case basis		1 in 2 spaces passive provision
Class C1			
Hotels and motels ⁵	1 space per bedroom plus 1 spaces per 3 FTE staff plus 1 space per 5 m ² public floorspace for conference or exhibition facilities plus 1 coach space per 100 bedrooms (minimum)	1 l/t space per 10 beds 2 l/t space per 10 staff	1 in 5 active provision Remaining spaces passive provision
Small hostel (single parent or couple with no children)	0.75 spaces per unit	1 l/t space per 2 units	
Family hostel (two adults and two children)	1 space per unit	1 l/t space per unit	
Class C2			
Institutions / homes with care staff on premises at all time ¹	Please see specialist housing requirements		
Supported or other specialist housing ^{1,2}			

Use Class / Type	Required number of car parking spaces (includes visitor spaces unless otherwise stated)	Minimum cycle parking standard	Electric Vehicle Charging Points
Hospitals	To be assessed on a case by case basis		
Education – Halls of Residence	1 space per 2 FTE staff plus 1 space per 6 students	1 l/t space per 3 students 1 l/t space per 10 staff	1 in 5 spaces active provision remaining spaces passive provision
Class F1			
Schools (including residential)	1 space per FTE staff plus 1 visitor space per 100 students	Minimum requirement (based on travel plan mode share targets) 1 space per 10 students 1 space per 20 staff	1 in 5 spaces active provision 1 in 3 spaces passive provision
Further education	1 space per FTE staff plus 1 space per 5 full-time students	1 l/t space per 5 students 1 l/t space per 10 staff	1 in 5 spaces active provision 1 in 3 spaces passive provision
Places of worship	1 space per 10 m ²	Greatest of: 1 per 50m ² or 1 per 30 seats capacity	1 in 10 spaces active provision 1 in 4 spaces passive provision
Public halls and places of assembly	1 space per 9 m ² or 1 space per 3 fixed seats plus 3 spaces per 4 FTE staff	Greatest of: 1 per 50m ² or 1 per 30 seats capacity	1 in 10 spaces active provision 1 in 4 spaces passive provision
Class F2			
Community and family centres	1 space per 9 m ² plus 1 space per FTE staff	Greatest of: 1 per 50m ² or 1 per 30 seats capacity	1 in 10 spaces active provision 1 in 4 spaces passive provision
Squash courts	2 spaces per court	1 s/t space per 25 ²	
Gyms and health clubs	1 space per 15 m ² public floorspace	1 space per 10 staff	
Ice rink	1 space per 12 m ² rink area		
Ten pin bowling	2 spaces per lane	1 s/t space per 3 lanes /rink 1 s/t space per 25 spectator seats 1 l/t space per 10 staff	
Football pitches	20 spaces per pitch 1 space per 5 paying spectators (where there is fixed or temporary seating)	2 s/t space per pitch	1 in 10 active provision
Other outdoor pitches	1 space per 2 users (maximum potential usage) 1 space per 5 paying spectators (where there is fixed or temporary seating)		1 in 4 passive provision

Use Class / Type	Required number of car parking spaces (includes visitor spaces unless otherwise stated)	Minimum cycle parking standard	Electric Vehicle Charging Points
Golf course	100 spaces plus 50 overflow (18 holes) 9 holes at 50% of above rates	5 l/t spaces per 9 holes	
Golf driving range	1.5 spaces per tee	1 s/t space per 5 tees	1 in 10 active provision 1 in 4 passive provision
Other sports and recreational uses	To be assessed on a site by site basis, dependant on anticipated staffing, levels of use and numbers of paying spectators		
Sui Generis			
Multi-screen cinemas and theatres	1 space per 5 seats on free standing development	1 s/t space per 20 seats (up to 500 seats) 25s/t plus 1 l/t per 100 seats (over 500 seats) 1 l/t space per 10 staff	1 in 5 spaces active provision 1 in 3 spaces passive provision
Hot food takeaways	2 spaces per 5m ² of public floorspace	1 s/t per 100m ² 1 l/t space per 10 staff	1 in 10 spaces active provision 1 in 5 spaces passive provision (min requirement 5 spaces)
Drinking establishments	1 space per 5 m ² of public Floorspace	1 s/t space per 100 m ² 1 l/t space per 10 staff	1 in 10 spaces active provision 1 in 4 spaces passive provision
Motor Trade related (Sui Generis)			
Staff	0.75 spaces per FTE staff	1 l/t space per 10 staff	1 in 5 spaces active provision 1 in 3 spaces passive provision
Showroom and car sales	1 space per 10 cars displayed		1 in 10 spaces active provision 1 in 5 spaces passive provision
Vehicle storage	1 spaces per showroom space or 10% of annual turnover		1 in 5 spaces active provision 1 in 3 spaces passive provision
Hire cars	1 space per 2 cars based on Site		1 in 5 spaces active provision

Use Class / Type	Required number of car parking spaces (includes visitor spaces unless otherwise stated)	Minimum cycle parking standard	Electric Vehicle Charging Points
		1 l/t space per 10 staff	Remaining passive provision
Ancillary vehicle storage	2 spaces or 75% of the total if more than 3 vehicles		3 in 10 spaces active
Workshops	3 spaces per bay		3 in 10 spaces passive
Tyre / exhaust centres	2 spaces per bay		1 in 10 spaces active provision
Parts store / sales	3 spaces for customers		1 in 5 passive provision (5 parking spaces minimum)
Car wash / petrol filling ⁶	3 waiting spaces per bay		

Table 5: Car parking for disabled people

Use Class / Type	Minimum Parking Standard
Employment Generating Development	
Up to 25 parking spaces	2 disabled spaces
26 to 50 parking spaces	3 disabled spaces
51 to 75 parking spaces	4 disabled spaces
76 to 100 parking spaces	5 disabled spaces
Thereafter	1 disabled space for every 50 spaces or part thereof
Shops / Buildings to which the public have access and Public Car Parks	
Up to 20 parking spaces	2 disabled spaces
21 to 40 parking spaces	3 disabled spaces
40 to 60 parking spaces	4 disabled spaces
61 to 80 parking spaces	5 disabled spaces
81 to 100 parking spaces	6 disabled spaces
Thereafter	3 disabled spaces for every 100 spaces or part thereof
Hotels	As for employment generating development or 1 disabled space per room built to mobility standards, whichever is the greater

3.35 The tables on the preceding pages set out the Council's non-residential parking standards. The car parking standards show the required levels of provision in line with guidance in the NPPF and the emerging Local Plan. The cycle parking standards set out the minimum level of provision.

3.36 Outside of the accessibility zones identified below, there will be a presumption that the required car-parking standard should be applied. Where necessary, the total level of provision should be rounded to the nearest whole number. Developers proposing car-parking provision above or below the levels identified in this SPD should provide robust evidence to support their case, including where genuine shared car parking opportunities exists. Where a change of use occurs from an E Class unit to a drinking establishment, for example, without any increase in floorspace or footprint, the Council recognises that it may not be appropriate to seek the maximum amount of off-street parking.

- 3.37 It is considered that the above reductions would benefit from the support of other sustainable initiatives that reduce car ownership and promote more sustainable forms of transport in the form of car clubs, bike schemes and funded/subsidised travel cards and part of Travel Plans. These solutions will be discussed further below.
- 3.38 Appropriate provision should be made for the parking of motorcycles and other powered two-wheel vehicles. As a guide, approximately 5% (1 in 20 spaces) of the required car parking provision (excluding the disabled requirement) should be allocated for motorcycle use. This proportion should be included in the total parking provided for a development rather than in addition to it.
- 3.39 Parking and access requirements for service and delivery vehicles shall be additional to the requirements set out in these standards unless specifically stated. Where required, the quantity and design of Heavy Goods Vehicle (HGV) parking will be assessed on a site-by-site basis. Further advice on the design and layout of parking provision is given in Section 5.

Accessibility Zones

- 3.40 As stated above, the accessibility zones have been simplified since the 2014 SPD. Instead of having residential and non-residential accessibility zones, there is now a single set of parameters to guide reduced parking in sustainable locations. The number of zones have also been reduced from 4 to 3.
- 3.41 Applications for new development in these areas should seek to promote the use of walking, cycling and public transport by providing car parking below the maximum levels. The table below indicates the proportions of the maximum car-parking standard that will normally be sought within each zone. This reflects the scope to reduce reliance on private transport in the most accessible areas where there are alternative modes of transport and is informed by the fact that by planning applications have been approved with similar levels of parking as those shown below.
- 3.42 Disabled car parking provision should not be subject to discount and should always be provided at the full standard. A worked example is provided in Appendix 2.
- 3.43 The upper end of each range will form the starting point for negotiation. Provision below this point, within the specified ranges, should be justified by the applicant and will be assessed having regard to the following criteria (as applicable).
- The impact upon the highway including on street parking conditions;
 - Existing on-street parking conditions and capacity in the surrounding areas;
 - On-street parking stress and unsafe/obstructive parking
 - Access to existing public or private car parking facilities and potential for shared parking;
 - The ability of existing Controlled Parking Zones (CPZs) to absorb any additional demand for parking outside of controlled hours;
 - Proximity to public transport and services;
 - The level of cycle parking provided;
 - The layout, design and form of parking provision; and
 - The provision of mitigating measures
- 3.44 Developments that are likely to result in levels of additional on street parking that would be contrary to highway and safety considerations will not be permitted. The Council will consider schemes that propose the shared use of existing car parking

facilities where this can be reasonably accommodated. The introduction of a new Controlled Parking Zone to address a shortfall of off-street parking provision will also be considered, together with a financial planning obligation or CIL to the cost of investigating, consulting on and implementing a scheme. Where new development is proposed within an existing Controlled Parking Zone and that CPZ has no capacity to absorb additional demand, all parking requirements should be met on site.

- 3.45 A Parking Stress Survey will be required by the Council where proposals are put forward seeking a discount on the prescribed parking standards and where high parking stress exists, or is likely to exist following development. For non-residential developments of less than 500m², the need for a Parking Stress Survey is at the Council's discretion.
- 3.46 Measures to mitigate against the parking and / or transport impacts of new development may include (but are not limited to):
- On- or off-site highway works to facilitate the use of alternative modes;
 - The provision of a Travel Plan
 - Section 106 contributions or CIL towards sustainable transport measures (including Greenways routes); or
 - Section 106 contributions or CIL towards the development and / or implementation and control of CPZs.

Cycle parking

- 3.47 Journeys by bicycle remain very low in terms of modal share at around 1% across the borough but the SPD supports increased cycle through increased and improved parking provision. The DfT guide 'Cycle Infrastructure Design' has been used as a basis for many of the minimum cycle standards suggested, primarily with a focus on spaces per square metre which may either be for 'short stay' or 'long stay'.
- 3.48 Good practice points to adopting a minimum requirement for cycle parking and in a similar way to parking stress surveys, monitoring and survey of uptake of cycle spaces will allow a more flexible approach enabling additional parking and other parking facilities to be provided on-site over time. However, particular development types such as sports and recreational developments which children may be expected to use without accompanying adults (e.g. sports pitches, swimming pools etc.) should make additional provision for cycle parking.
- 3.49 In addition to secure, covered parking, the Council will seek the provision of showers and changing facilities (including lockers) on all major employment (B-class and E class offices, research and development) developments. Developers should make reasonable provision of associated facilities on other non-residential schemes that will employ a significant number of people or have the potential to generate an increased number of journeys to work by bicycle.

Electric Charging Provision

- 3.50 The Council wishes to ensure that sufficient provision is made for electric vehicle charging infrastructure in new developments, including workplaces and any other public car parks. Although it is difficult to predict charging behaviour, the level of provision indicated is broadly based on the average length of time parking will be required.
- 3.51 The associated charging provision will be required when a related building or use to the car park it serves is subject to development that requires planning permission. At

a national level, for workplaces there are incentives for installing charge points that cover 75% of purchase and installation costs for up to £350 per socket with 100% tax relief for expenditure on electric vehicle charging equipment for the first year.

Car Clubs

- 3.52 The establishment of car clubs is an increasingly common response to the need to reduce traffic congestion and reduce the carbon footprint of development, particularly within larger built up areas. There are presently several car clubs in Hertfordshire, with the majority at the university campus in Hatfield or in other urban centres such as in Stevenage, Watford and Hemel Hempstead. Schemes at local authority offices in these locations have the advantage of being available to the general public, at least for part of the week, raising the profile of electric cars and delivering on commitments to cutting carbon emissions.
- 3.53 The Council is planning to start a scheme of its own in the near future, subject to the ending of the COVID-19 pandemic. Dedicated spaces, each with their own active charging points, will be required and there is the potential to allow a scheme in Borehamwood to be used by employees or residents of the Elstree Way Corridor.
- 3.54 The allocation of spaces for car club vehicles, with their own charging points, will be over and above the standard electric charging provision requirements. The Council will seek the allocation of car club spaces at larger developments allocated in the Local Plan as part of the establishment of car club schemes (or extensions to existing schemes nearby). In any development exceeding 75 units, dedicated car club spaces should be available as follows:

Number of cars in club / Required number of dedicated spaces	Size of development (dwellings)
1	75
2	150
3	250
4	350
5 plus *	450

- 3.55 In non-residential schemes, car club facilities should be provided subject to the following thresholds:

Development Type	Threshold for Car Club Facilities
Retail	800m ² gross floor area
Employment	1500m ² gross floor area
Non-residential Institutions/ Assembly/Leisure	1500m ² gross floor area
Other	100m ² or more vehicle parking spaces

On-demand bus services

- 3.56 On-demand bus services have the potential to reduce the demand for car parking spaces on larger new developments as well as new and existing larger employment areas. These are normally operated through smaller minibus type vehicles that are more efficient in terms of running costs and running nearer capacity than larger vehicles. Arriva-click is currently being trialled in Watford and is being considered as part of strategic allocations in Hertsmere, including the potential to extent the Watford pilot into Bushey. Significant development proposals that are seeking a discount on

off-street parking, in accordance with this SPD, will be expected to identify opportunities for on-demand bus services to be created or expanded into the site.

Bike hire schemes

- 3.57 To complement car clubs, mainly for shorter journeys, there are plans to roll out bike hire schemes in Borehamwood and Elstree. This may expand to other towns as opportunities for funding and viable routes become available with train stations acting as a hub. In Borehamwood, the first phase will enable commuters to cycle between Borehamwood and Elstree railway station, the centre of Borehamwood and across to Sky Studios on the eastern edge of the town,. The bike service will be run by Beryl bike hire and will consist of both electric bikes and pedal only bikes. The scheme should be up and running in late 2022 and Beryl are already looking at other locations to expand the scheme into following the first phase. Significant development proposals that seek discounted off-street parking will also be expected to identify opportunities for bike hire schemes to serve a site.

Mobility Hubs

- 3.58 Although fairly well established in North America and Europe, Mobility Hubs are a relatively new concept in the U.K. Mobility Hubs incorporate the aforementioned measures and additionally may include elements like electric scooter hire, for example. Mobility hubs bring together shared transport with public transport and active travel in spaces designed for this purpose. They act as a focal point, providing an efficient use of space for different types of sustainable transport and often help with providing choice for the 'first and last mile' principle.
- 3.59 Although there are no mobility hubs within the borough at the time of writing, they should be incorporated as a way to build on the car club requirement on 75+ dwelling schemes, in larger strategic size developments of 200 plus dwellings, and should provide two or more options of sustainable travel.

Subsidised Travel

- 3.60 New developments, particularly on the edge of larger settlements, should utilise schemes to provide free or heavily subsidised bus travel cards. One such scheme on the outskirts of Chelmsford in Essex where 800 new homes are being built, offers 2 free travel cards per household for the first 12 months. This will allow quick and easy travel to Chelmsford railway station for commuters, dispensing for the need for extra parking to be provided at the station. Options to provide longer-term subsidy should also be explored.

Lorry Parking

- 3.61 Guidance in the NPPF states that existing issues should be resolved through the plan as well as providing for new parking areas. AECOM's National Survey of Lorry Parking in 2017 highlighted the South East as requiring the highest percentage of new lorry parking spaces in the country; there is currently a 37% deficit and a practical requirement for 470 additional lorry spaces, using the standard that 85% capacity is full and 210 spaces if every space is occupied. This is thought to be primarily down to the high land values in the south east as lorry parks are particularly space hungry.
- 3.62 Lorry parking is at present only considered in industrial areas for short-term parking for deliveries. New and extended employment sites that are allocated in the Local Plan

will be expected to incorporate addition spaces for long-term and overnight lorry parking in addition to the delivery parking and staff/visitor parking.

4. Design and Layout of Parking Spaces

- 4.1 There are a number of publications providing advice on design and layout that should be considered in conjunction with the SPD and that will be material considerations in the determination of planning applications. Hertsmere's *Planning and Design Guide* provides guidelines on design considerations and criteria for new developments, including car-parking areas. *Roads in Hertfordshire – A Design Guide*, is published by Hertfordshire County Council and contains technical advice on the detailed transport aspects of residential or commercial developments, the most recent iteration having been produced in 2011. Prospective developers should refer to those standards in conjunction with the advice contained in this SPD.
- 4.2 Hertfordshire County Council has also published *Building Futures*, an advisory sustainable development guide. The Water module should be referred to for additional advice on the use of sustainable drainage systems and (semi) permeable surfacing. The document is gradually being replaced by *The Sustainable Design Toolkit*, although the Water module was not yet available at the time of publishing this document.
- 4.3 The Department for Communities and Local Government and the Department of Transport jointly published the *Manual for Streets* in March 2007. This document contains detailed advice and guidance on the layout of streets in new development. Although an updated version planned, the 2007 version is likely to remain in use until 2022 at the earliest.

Car Parking

- 4.4 Parking areas should make a positive contribution to the design and setting of development with surface parking bays a minimum of 2.4 x 4.8m in dimension. Adequate space must be provided for turning and manoeuvring, which is set at 6m.
- 4.5 Where new houses are proposed, the preference will be for car parking to be provided within the curtilage of the individual dwelling. Where car parking is to be provided adjacent to a home designed to lifetime home standards, the space should be capable of enlargement to a width of 3.3m in accordance with Lifetime Homes standards.
- 4.6 Where garages are provided and being counted towards levels of off-street parking, these should have minimum internal dimensions of 3m x 6m (or multiples thereof) and an opening width of at least 2.5m to ensure that they can provide sufficient space for the storage of cars. Garages that do not meet these dimensions will not count towards car parking provision. Where appropriate, the Council will remove permitted development rights on new residential developments to prevent the conversion of garages to additional habitable rooms.
- 4.7 Separate design guidance has been published by the Council in an [Appendix](#) to the Planning and Design Guide on garage conversions. Where garages within older developments are smaller than the dimensions set out above, it will be considered too small for modern parking requirements. In such instances, there is a general presumption in favour of allowing their conversion into habitable rooms subject to meeting the Council's design guidelines.
- 4.8 Undercroft parking will be supported where it does not adversely affect the appearance of a development or the wider streetscene and where it meets secure by design principles. However, gated residential developments will be resisted unless exceptional circumstances exist. Gated developments can create a sense of segregation, reduce connectivity between developments, and can increase fear and

perception of crime and will be resisted by the Council. The installation of high security gates to the front of individual properties can have a similar effect and will also be resisted.

- 4.9 Parking layouts will be expected to reduce opportunities for crime and incorporate Secured By Design principles, with consideration given to achieving the ACPO Park Mark award, which assesses the safety of communal parking as set out in Part D of the Planning and Design Guide (Chapter 2r Section k). In consultation with Hertfordshire Constabulary, the Council will seek S106 or CIL funding for CCTV, where appropriate, as well as encouraging developments to achieve Park Mark Safer Parking Awards accreditation. The Building Futures 'safety module' should also be taken into consideration.
- 4.10 Impermeable surfaced or paved areas should be minimised. Permeable solutions should be used wherever practicable to minimise additional surface water run-off into storm water drainage networks. In large areas of car parking, boundary areas or dividing raised kerbs could include filter strips or rain gardens to improve water quality and encourage infiltration. All proposals involving large areas of car parking should contain sufficient amounts of permeable surfacing, as well as appropriate soft landscaping in accordance with the provision of the Planning and Design Guide.
- 4.11 To reduce flood risk and encourage biodiversity, residential developments should avoid the use of hardstanding that covers the entire front garden area. The conversion of entire front gardens to create hardstanding will be discouraged. Where appropriate, the Council will remove permitted development rights on new residential developments in order to achieve this.

Disabled Car Parking

- 4.12 Disabled parking bays should extend significantly beyond the standard minimum dimensions of 2.4m x 4.8m. Bays should be provided at right angles to the access aisle, with an additional width of 1.2m to be provided along each side. This strip can be shared where disabled bays are provided adjacent to one another. There should also be a 1.2m safety zone at the access end of each bay. These measures are to allow safe access to both sides of the vehicle and the boot, creating a total minimum bay size of 3.6m x 6m. Where this arrangement is not possible and bays are to be provided parallel to the access aisle, an additional 1.8m should be added to the length of each bay.
- 4.13 Disabled bays should be well lit and signed and/or marked. Bays should be as close as possible to the main entrance of the building and must be provided within 50 metres, on level ground. The route from the disabled parking bays to the entrance must be free from steps, steep slopes or other obstructions with a dropped kerb provided within close proximity of the bays where access into the building(s) is via a raised footway. Sufficient space should also be provided to enable wheelchair users to safely exit their wheelchair accessible vehicle via any rear ramp, including where a garage is proposed as the disabled parking space, in which case the garage should have an internal width of at least 3.6m wide. Disabled bays within car parks should not double up as 'parent and child/baby' parking spaces.
- 4.14 Further information is set out in the Department for Transport's Traffic Advisory Leaflet 05/95: Parking for Disabled People and Inclusive Mobility, available from www.dft.gov.uk or BS 8300: 2009 Code of Practice on Accessible Buildings.

Motorcycle Parking

- 4.15 Areas for motorcycle parking should be covered and well drained with no, or only a slight, gradient. A non-slip surface should be provided. Any parking bays or areas should provide a means for securing motorcycles and powered two-wheelers, including e-scooters. Both ground level and raised points can be considered, provided they are designed so as not to create an obstruction or trip hazard to pedestrians.
- 4.16 Fixed features including rails, hoops or posts that provide a locking point should be considered. A footprint of 2.0m x 0.8m should be allowed for each motorcycle. Further information on forms of storage and security is provided in the Department for Transport's Traffic Advisory Leaflet 02/02: Motorcycle Parking, available from www.dft.gov.uk

Cycle Parking

- 4.17 Short stay and longer stay parking should be characterised by different priorities, broadly around convenience versus security. Short stay facilities should be near to shop fronts to and in multiple smaller clusters of stands to maximise convenience and allow for surveillance. Longer stay provision should ideally be covered by secure, covered access (not open to passing members of the public) and/or a CCTV security system. Facilities should still be situated near the entrance to workplaces and educational establishments, or train stations that are within walking distance of town centres.
- 4.18 In the absence of being able to store bikes within the curtilage of or inside a property in the case of flatted developments, dedicated secure/lockable cycle storage should be provided on the ground floor to prevent stairwells and corridors becoming blocked. In instances where the development is accessed by steps or there is no opportunity for shared space storage then cycle sheds or as a last resort, or covered and lockable on-street cycle hangars, may be a viable option.
- 4.19 On large commercial or leisure developments, the use of two-tier racks should be actively considered to achieve greater cycle parking capacity in the same footprint. However, on particularly large schemes in excess of 5,000m², cycle parking requirements may be relaxed to avoid prejudicing the overall design of a development through the allocation of excessive numbers of cycle parking spaces.
- 4.20 For communal cycle provision, Sheffield or Camden 'M' stands (or similar) are considered satisfactory. These can be secured in two places aiding stability and making theft more difficult and less convenient. This is opposed to concrete slots in the ground or metal hoops, where particularly in the case of bike with quick release front wheels, it makes theft far too quick and easy. One Sheffield stand will be counted as two cycle parking spaces provided the requirements set out below are met.
- 4.21 Sheffield stands (or similar) should be 800-1200mm in length and not more than 800mm in height. A space of at least 1000mm should be given between the midpoint of each stand with a gap of at least 600mm between stands and walls or other obstructions and 1000mm at the front to allow a bike to be wheeled into position. Stands should be securely affixed to the ground, preferably through the use of submerged fixings. A flat, bound surface that is well-drained should also be provided.

4.22 Short-term cycle parking provision should:

- be well lit;
- be conveniently located within a short distance of the building entrance and, where possible, offer a real advantage over the nearest available car parking space
- allow for natural surveillance;
- be sited away from bin stores (or other features that may deter use) and;
- be clearly signed on non-residential developments.

4.23 Long-term cycle parking provision should meet the criteria in Paragraph xx and, in addition, be covered, lockable and secure (e.g. a dedicated cycle shed, pen and/or as part of any underground or undercroft parking). Where new houses are built and there is insufficient storage space within the main dwelling (including any garaging), separate secure cycle parking provision should be made within the curtilage of the home. An indicative cycle store layout is provided in Figure 6.

4.24 Further detailed information on forms of storage and security is provided in the Department for Transport's Cycle Infrastructure Design Guide published in July 2020 and Hertfordshire County Council's Cycle Parking Guide, which remains the most up to date guidance.

5. Individual planning applications

Parking Stress Surveys

- 5.1 On-street Parking Stress Surveys will be required by the Council where proposals are put forward seeking a discount on the prescribed parking standards and where high parking stress exists, or is likely to exist following development. All such developments will be required to present the results of a parking stress survey as part of a planning application. For proposed residential developments of less than 10 units, or for non-residential developments of less than 500m², the need for a Parking Stress Survey is at the Council's discretion. For example, in areas where it is recognised that a high proportion of small applications have caused intensification of development, parking stress surveys may need to be carried out for smaller scale development than the usual threshold.
- 5.2 Most forms of development have the potential to increase the amount of on-street parking, also known as parking stress. High parking stress can affect highway safety, the free-flow of traffic, amenity, access by emergency services, refuse collection and delivery of goods. Investigation of parking stress forms an important part of the Council's analysis of development proposals and therefore it is essential that sufficient information is submitted by the developer to allow a full analysis of the matter. An unacceptable increase in parking stress or the submission of an insufficient level of information can lead to a recommendation for refusal of a planning application.
- 5.3 In situations where previously approved development has not been implemented, this should be taken into consideration when evaluating the results of Parking Stress Surveys. This is to allow for the cumulative impact of development on on-street parking supply to be factored in and ensure that all potential additional on-street parking demand is taken account.
- 5.4 More detailed guidance on the parameters for parking stress surveys is set out in Appendix 4. Similar parameters will apply when surveys investigate the need to for new or extended CPZs although detailed guidelines on the introduction or extension of CPZs is set out in the Council's [Parking Management Strategy](#).

Section 106 and CIL Contributions

- 5.5 The council introduced its CIL charging schedule in 2015. The council collects CIL in line with the Charging Schedule and where appropriate, the Council will also seek Section 106 and / or Section 278 obligations to deliver improvements to highways and transport infrastructure that are directly related to a proposed development. Planning obligations will be sought in accordance with the provision of the CIL Regulations 2010 (as amended).
- 5.6 Obligations for highways and transport improvements may include (but are not limited to) contributions and / or works towards the following:
- On-site or off-site highway improvements
 - Public Transport improvements
 - Other sustainable transport measures (e.g. cycle paths alongside existing roads)
 - Greenways (generally shared routes for cycling, equestrian and pedestrian use)
 - Parking improvements and / or security measures in the vicinity of the site
 - Development and / or implementation and control of CPZs
 - Air quality monitoring

- 5.7 Growth and Transport Plans have been produced by Hertfordshire County Council covering Bushey (SW Herts GTP) and Borehamwood and Potters Bar (South Central GTP). These plans identify key schemes and areas of work in Hertsmere's main towns and will, in addition to any other requirements identified by HCC, be used to guide any site-specific requests for Section 106 contributions from new development including those associated with new sites allocated in the Local Plan. S106 contributions will also be sought, where applicable, to cover site-specific monitoring requirements as well the costs associated with investigating, consulting on and implementing any new or extended CPZ or other parking controls necessitated by new development.

Transport Assessments

- 5.8 The predicted effect of the traffic that is likely to be generated by new development will, in certain circumstances, need to be assessed to allow the determination of planning applications. Developers should consult with HCC, as Highway Authority, to agree on the existing conditions near the development site and the need for any formal Transport Assessment to be prepared. This may require the submission of a separate pre-application to HCC.
- 5.9 Transport Assessments should be submitted alongside a planning application for the following types and size of development (areas are gross floor space measured externally, unless otherwise stated):
- Residential Development in excess of 25 units
 - Retail development of more than 2000m²
 - Development in classes E, B2, or B8 of more than 2000m² and
 - Developments for sports centres, leisure facilities and golf courses and practise ranges.
 - In addition to the development types listed above, Transport Assessments should also be produced:
 - Where traffic levels to and from the proposed development are likely to exceed 5% of the two-way traffic flow on the adjoining highway from which it takes access
 - Where traffic congestion exists or will exist within the assessment period; and
 - In sensitive locations (e.g. adjacent or close to traffic lights or roundabout junctions).
 - Where a Transport Assessment is not submitted, developers should be able to satisfactorily demonstrate that these requirements have been tested.
- 5.10 Further information on the requirements for Transport Assessments is contained in *Roads in Hertfordshire*, which prospective developers should refer to in conjunction with the advice contained in this SPD. Contact details for the highway authority are provided in the following section. National Planning Practice Guidance also provides advice on when Transport Assessments are required and what they should contain.

Appendix 1: Car ownership in Hertsmere

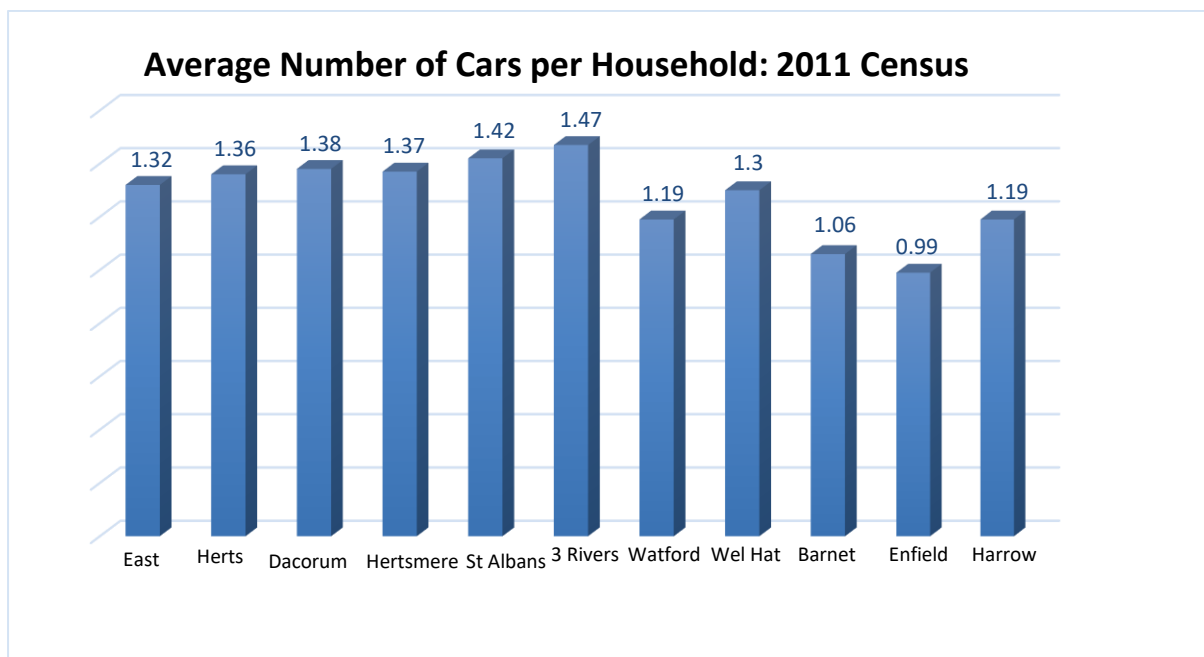
1. Hertsmere has historically displayed levels of car ownership above the national average. Results from the 2001 Census⁷ showed average car ownership in Hertsmere to be 1.35 vehicles per household, which increased to 1.39 in the 2011 Census. In 2001 this was higher than the average figure for the East of England region (1.27 vehicles per household) and England as a whole (1.11 vehicles per household).
2. Census data shows that the population has grown from 94,450 in 2001 to 100,031 in 2011, which is an increase of 5.91%. The current population is estimated to be 104,900 based on ONS figures released in 2020. The number of cars or vans in Hertsmere has grown at a faster rate compared to population growth at an increase of 7.79%, from 51,324 in 2001 to 55,324 in 2011. Meanwhile household size remains steady at 2.5 people per household.
3. The data showed a level of differentiation in levels of ownership between different housing tenures, with households with two or more vehicles being considerably higher in owner-occupied homes compared to social or private rented. The number of households with no vehicles was significantly lower in social rented properties. A level of caution should be applied to these figures, as the 2021 census figures will be published after this document and in due course, it may be necessary to review this SPD in light of the new census findings.

	Car or Vans in Urban/Rural Households					
	No cars or vans in household		1 car or van in household		2 cars or vans in household	
District	Urban%	Rural %	Urban%	Rural%	Urban%	Rural%
Broxbourne	17.6	8.5	42.2	33.3	29.6	47
Dacorum	17.6	3	42.2	36.2	30.9	38.8
East Herts	14.7	8	43.9	32.9	32.2	40.7
Hertsmere	18.3	8	42.7	35.4	29.1	39.5
North Herts	18.3	9.3	44.8	34	29.1	39.1
St Albans	13.9	9	43.6	36.8	33.2	39.4
Stevenage	22.8	10	43.7	-	26	-
Three Rivers	14.4	-	40.1	36.3	33.7	37.1
Watford	22.2	9.6	45.3	-	25.4	-
Welwyn Hatfield	22	-	42.5	33.6	27	39.3
Average	18.2	8.2	43.1	34.8	29.6	40.1

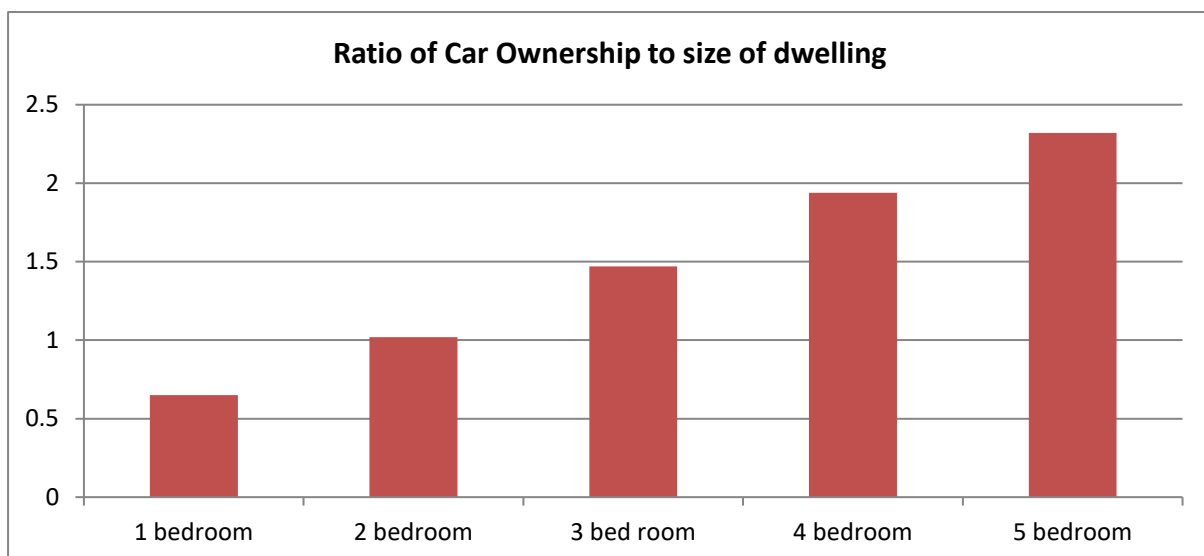
4. Travel to work data from the census showed that more than 65,000 journeys to work occur within the Borough. Of these, the majority were undertaken by private car. More than 6,000 individuals were recorded as living and working in the same ward in Hertsmere whilst more than 27,000 journeys were recorded between Hertsmere and its neighbouring Boroughs. More than half of these journeys are undertaken by car indicating significant opportunities to promote the use of alternative modes on shorter journeys.

⁷ Table KS17: Cars or Vans. Office for National Statistics (ONS). © Crown Copyright.

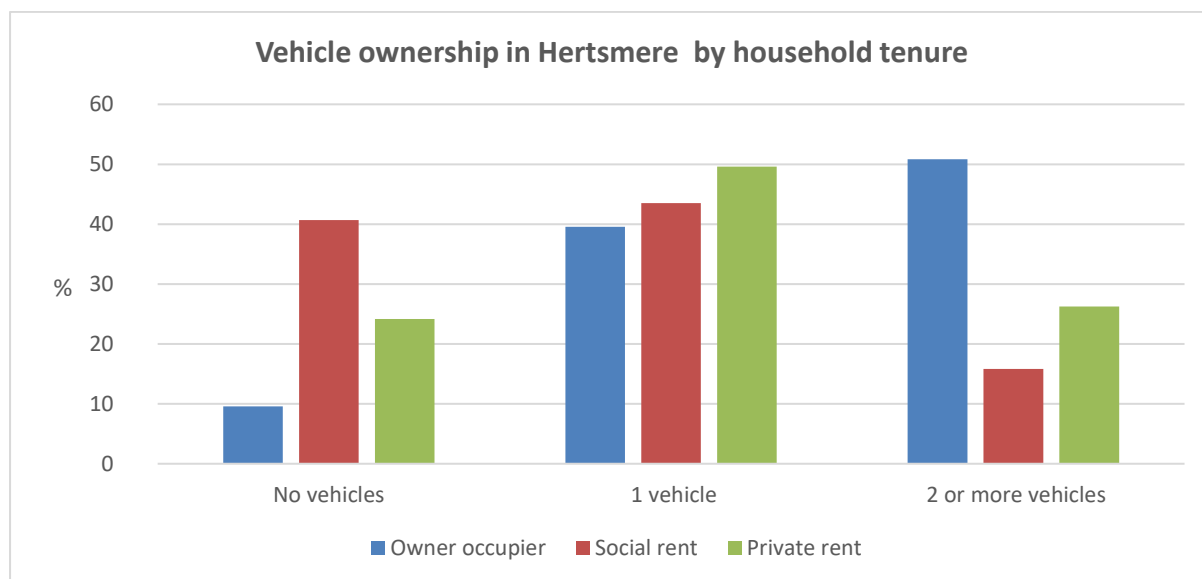
5. The following graphs provide further context in relation to car ownership inside and outside of the borough.



Source: 2011 Census



Source: 2011 Census



Source: 2011 Census

6. Approximately 1.5% of journeys to work beginning and ending in the Borough were undertaken by bicycle. 1.3% was undertaken by motorcycle or other powered two-wheeler.
7. There is some more up to date information from the Transport and Accident Data from 2019, however, the majority of the information is at county level. Some information is taken at local authority level, such as for example, Hertsmere had significantly more wheelchair users than any other authority in Hertfordshire and the second highest number of mobility scooters to Stevenage in the county during their count.

Appendix 2: Worked Examples

Example 1

- Scheme type: Residential (C3)
- Size / Type: 14 units: 8x2 bed flat, 6x1 bed flat.
- Parking type: Communal
- Residential Accessibility Zone: None

Step 1: Identify the maximum standards for the unit type and size

- 1 bed flat: 1 spaces per unit = 6 spaces
- 2 bed flat: 1.5 spaces per unit = 12 spaces
- Total = 18 spaces

Step 2: Identify the disabled parking requirement

- 6% of provision, rounded to the nearest number, should be available for disabled use.
- This results in a requirement for 2 spaces (rounded up from 1.8)

Step 3: Identify the discount

- Outside of the identified accessibility zones, there is a presumption for the maximum standard to be applied.

Step 4: Identify the provision for motorcycle parking

- 5% of the required car parking provision (1 in every 20 spaces) should be allocated for motorcycles and other powered two-wheel vehicles, rounded to the nearest whole number.
- Excluding disabled provision, 18 car parking spaces are required. At least one space should therefore be allocated and designed appropriately for motorcycles.
-

Step 5: Identify the provision for electric charging points (active) or the infrastructure to enable it (passive)

- 20% minimum, or 1 in 5 spaces should have active provision and the remaining spaces (max 80%) will have passive provision

This ratio is the same for motorcycle or disabled parking, so relates to the overall total. Therefore, rounded up from 3.5, 4 spaces should have a charging point and the remaining spaces should have the passive infrastructure to facilitate it. Step 5: Add back on the disabled parking

- 18 parking spaces should be provided. Of these, 15 should be standard car parking spaces with 1 motorcycle bay and 2 disabled spaces. 4 should have a charging point and 14 passive infrastructure

Step 6: Calculate the minimum cycle parking requirements

- A minimum of one long-term space per unit should be provided.
- A cycle store (or similar) with room for at least 18 cycles should be provided.
- In addition, one short term cycle storage space should be provided per five units. This would result in a requirement for 4 spaces.
- If the applicant wishes propose a lower level of car parking, it may be suitable to seek a higher level of cycle parking provision.

Example 2

Scheme type: Offices (B1a)

- Size / Type: 1200²
- Accessibility Zone: 2

Step 1: Identify the maximum standards for the unit type and size

- 1 space per 30m² = 40 spaces

Step 2: Identify the disabled parking requirement

- 40 spaces on an employment generating development would require the provision of 3 disabled bays.

Step 3: Identify the discount

- For development in Zone 2, the range is 60-80% of the maximum standard. The disabled provision is not subject to discount so the reduction should be applied to the remaining 37 bays. This results in a requirement for between 22 and 30 spaces.
- The general presumption will be to impose the upper end of the range rounded to the nearest whole number. In this case, this will result in a requirement for 30 spaces.

Step 4: Identify the provision for motorcycle parking

- 5% of spaces (1 in every 20) of the required car parking provision should be allocated for motorcycles and other powered two-wheel vehicles, rounded to the nearest whole number.
- 30 car parking spaces are required. At least two spaces should therefore be allocated and designed appropriately for motorcycles.

Step 5: Add back on the disabled parking

- 33 parking spaces should be provided (though as few as 25 may be acceptable depending on the circumstances and the criteria outlined in Section 5)
- Of these, 28 should be standard car parking spaces with 2 motorcycle bays and 3 disabled bays).

Step 6: Identify the provision for electric charging points (active) or the infrastructure to enable it (passive)

- 20% minimum, or 1 in 5 spaces, should have active provision and 1 in 3 passive provision
- Therefore, 7 spaces should have active provision and another 11 spaces should have passive provision.

Step 7: Calculate the minimum cycle parking requirements

- 1 short term space per 100m² = 2 spaces (rounded to nearest whole number)
- 1 long-term space per 200m². The applicant should supply sufficient information to allow this provision to be calculated on a site-by-site basis.

Appendix 3: Accessibility Zones and Methodology

1. The accessibility zones have been updated since 2014 as part of the [Settlement Hierarchy and Accessibility Mapping Analysis](#) published in 2019. These zones identify those areas where a reduced level of car parking provision may be considered acceptable.

Audit of services and facilities

2. As part of the settlement hierarchy analysis an audit of services and facilities was undertaken and this formed the basis for the information used in assessing the accessibility of an area. This was supplemented by Hertfordshire County Council information including bus service information.
3. These points were the mapped and travel distances were calculated based of the existing road and footpath network information provided by Hertfordshire County Council.

Categorisation and Weighting

4. In order to fully assess the different levels of accessibility within the borough the services were differentiated according to their function and use. These services were then categorised into either community services or regional services and weighted accordingly:
 - Regional services – scores were based on whether the site was within walking distance, or whether it could be accessed by bus from a designated point.
 - Community services –scores were based on walking distance alone with the specified grade boundaries being 400m, 800m and 1500m respectively.

Regional services	Community services
Elstree and Borehamwood station Radlett station Bushey station Watford High Street station Stanmore tube station Potters Bar Station Frequent bus service Infrequent bus service (<i>only counted if there is no frequent bus service</i>) Secondary schools	Primary schools Rural pub Community centres Local shopping parades Town centres (<i>if other community services listed above were located within the town centre they were not counted separately</i>)

5. The weightings given to each particular site were based on their perceived importance with town centres and railway stations within walking distance scoring the highest. As part of the methodology it was decided that the accessibility scores would only compare areas within Hertsmere. The scores do not relate to other sites outside of the borough and should not be used to directly compare parts of Hertsmere with London or anywhere else.

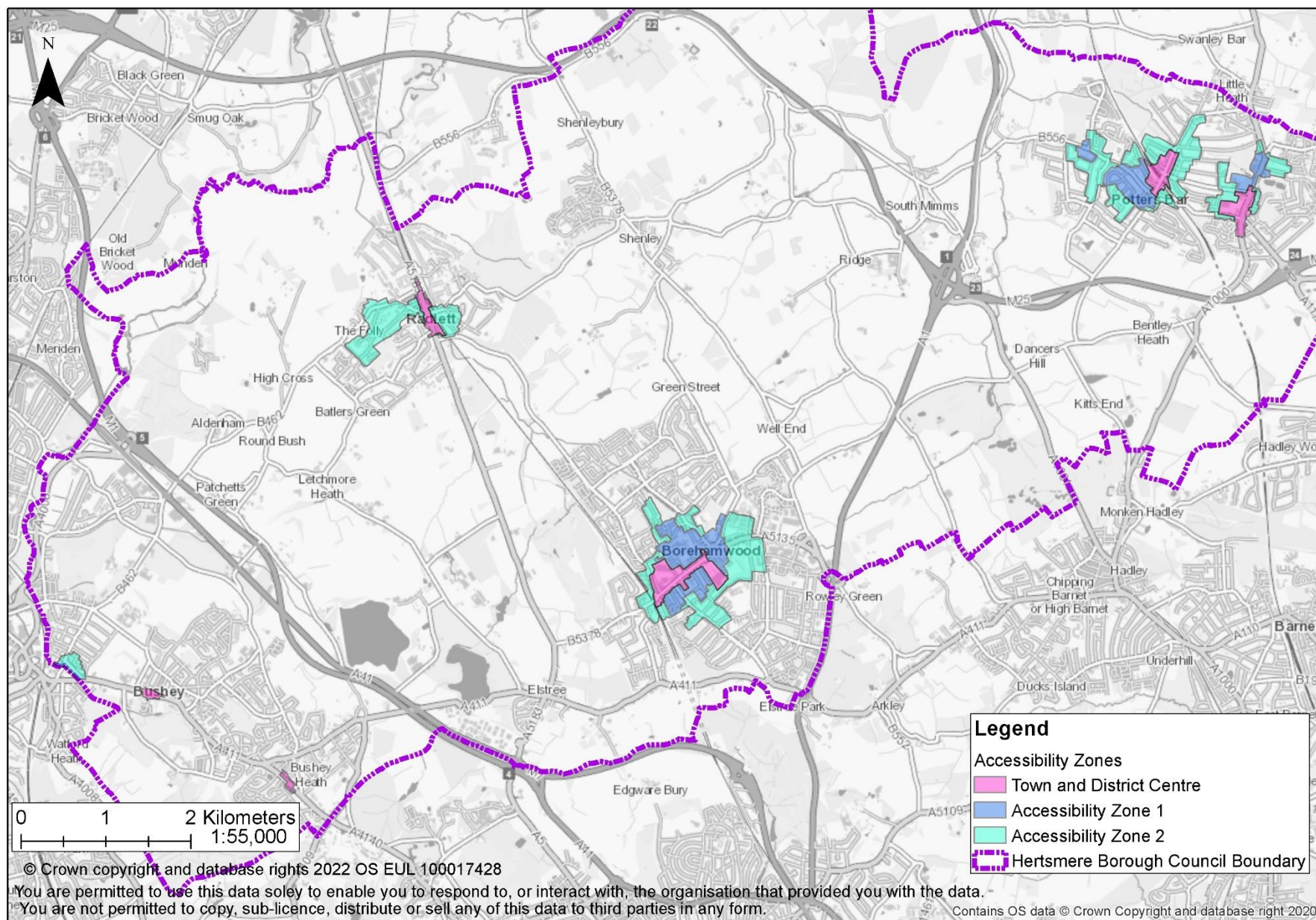
6. Once the scores and weightings were agreed the results were tabulated for each service. These results were then merged together and mapped to create a composite map showing the accessibility of the borough based on the criteria stated.
7. Accessibility zones have been created by connecting adjacent points in the same banding that formed a meaningful group (i.e. they were not in a straight line or covering a very small area). The zones have then been altered to take plot boundaries and other features into account. The zones are as follows:

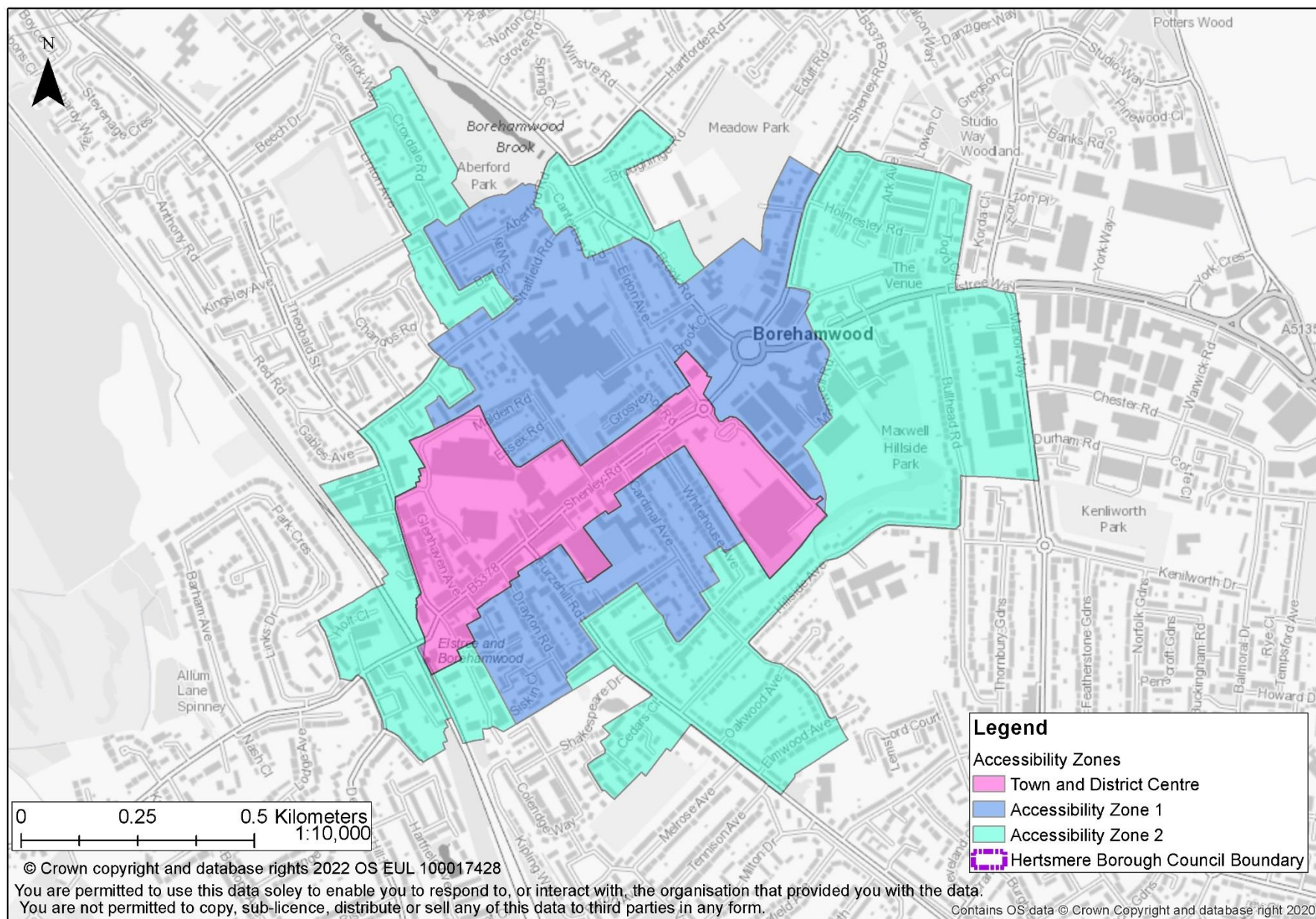
Accessibility Zone Parking Provisions

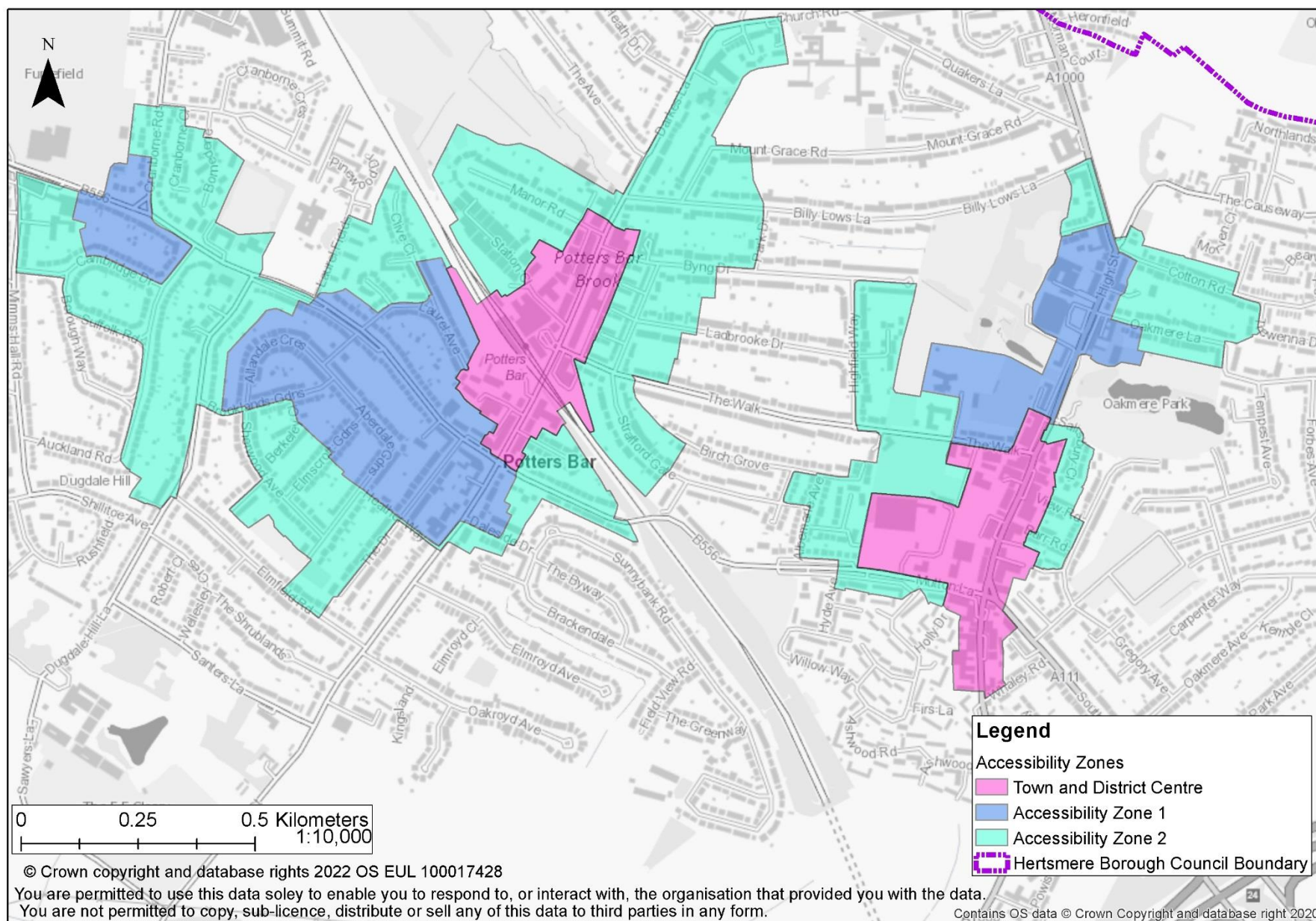
Accessibility Zone	Level of maximum car parking provision
Town centre	0 to 40% (discount of 60-100%)
Level 1	40 to 60% (discount of 40-60%)
Level 2	60 to 80% (discount of 20-40%)

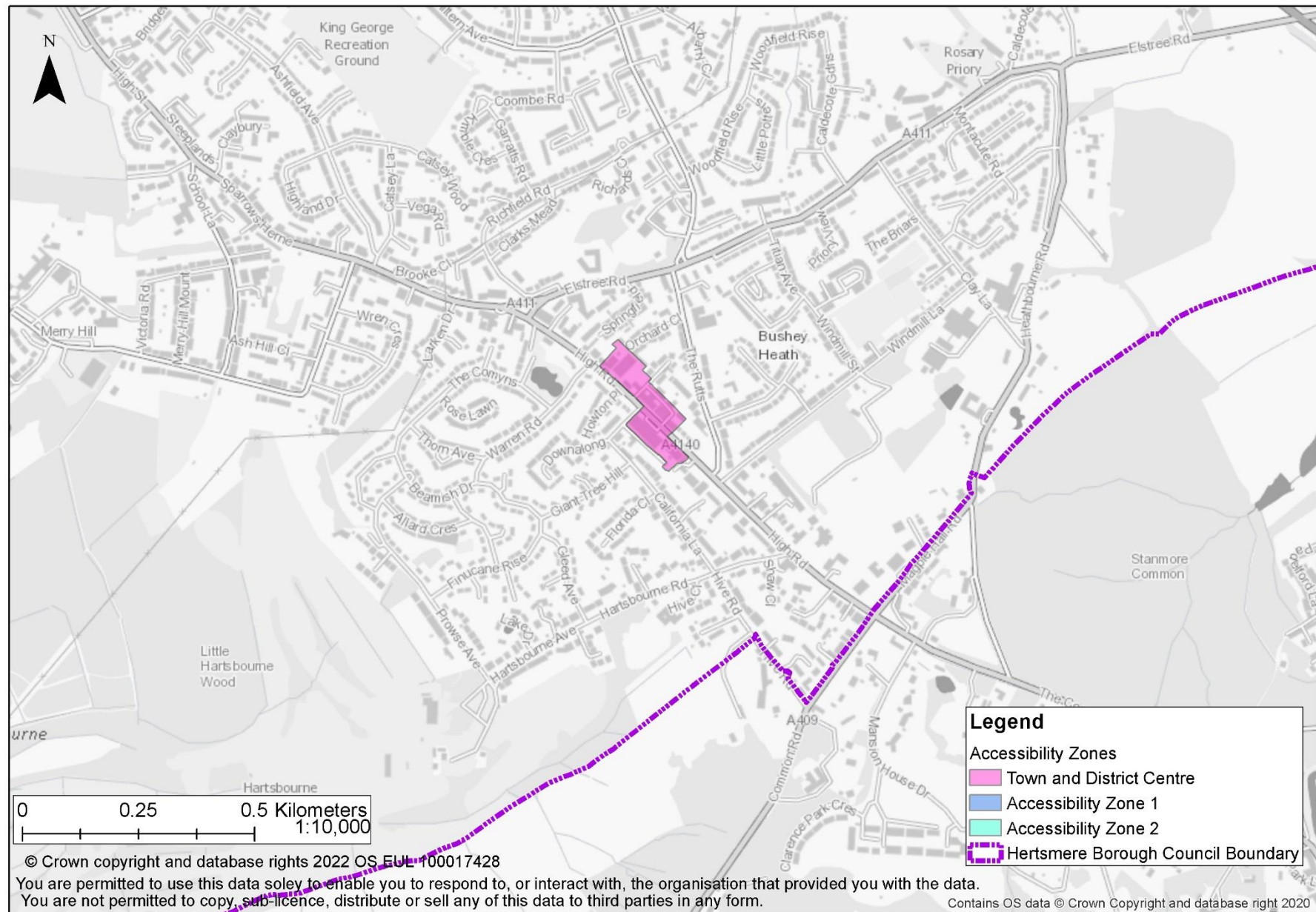
*Decimal places will be rounded to the nearest number (each 0.5 rounded up).

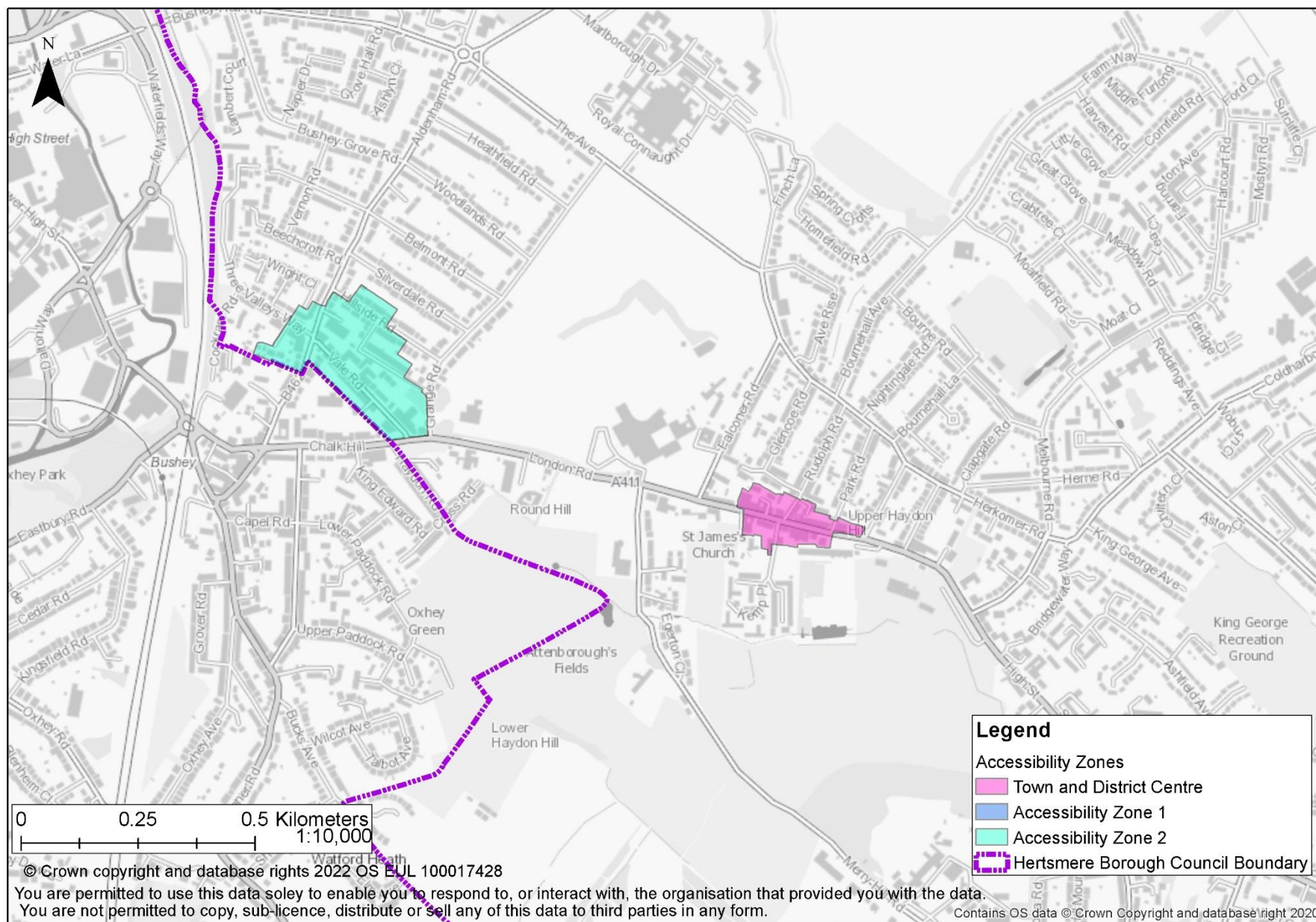
8. When discounts are applied, any variation in reduction should be focussed on the smaller units (2 bedroom or less).













Appendix 4 Parking Stress Surveys

1. Where possible, the scope of any parking stress survey should be agreed in advance with the Council. Although the requirements for surveys will vary depending on the location and type of development, the following guidelines should be followed when undertaking a survey.
2. Where parking surveys are undertaken as part of post-development investigation of CPZs, regard should be had to this guidance and in all instances, the scope of the survey must be agreed with the Council's Parking Services team.

Residential Developments.

3. The Council requires a parking survey to cover the area where residents of a proposed development may want to park. This generally covers an area of up to 400m (or a walk of up to five minutes) around a site; this should be a walking distance rather than a radius, taken up to a road junction or other logical point on the street. The survey should be undertaken when the highest number of residents are at home, typically during the evening or at night and carried out during the week, on two separate occasions. Any night-time surveys should be undertaken between Monday and Thursday and completed by 06.00am. Surveys should be undertaken when the highest number of residents are at home and so should avoid peak school holiday periods, public holidays and the days immediately preceding or following holiday periods.

Commercial Developments

4. Surveys for commercial developments should cover an area within at least 400m walking distance (or an approximate 5-minute walk) of a site; this should be a walking distance rather than a radius and taken up to a road junction or other logical point on the street. Surveys should generally be undertaken during the proposed opening hours of the commercial development and on a regular beat basis throughout the working day. Weekends should be avoided unless a new or extended CPZ is being investigated following completion of a development. As with residential schemes, surveys should be undertaken when the highest number of residents are at home and so should avoid peak school holiday periods, public holidays and the days immediately preceding or following holiday periods.
5. Where there are other commercial uses near to the site, early morning and early evening surveys may also be required due to conflict with commuter parking. Similarly, in locations within 800m (ten minutes' walk) of a train station or other area of commuter parking, morning and evening peak hourly surveys should be undertaken, typically between 06:00-09:00 and 17:00-20:00.

Additional survey time requirements

6. In town centre locations, surveys should only be undertaken between Monday and Wednesday. Where regular specific evening or weekend uses occur close to a site (e.g. a place of worship, sports club), additional surveys should be undertaken when

those uses are in operation. Where a one-off local event is taking place locally, this should be reported as it may impact on the results of the survey.

Controlled Parking Zones (CPZs)

7. Where parking stress surveys incorporate areas containing a CPZ, counts should be undertaken both within and outside of restricted hours. The survey should clearly where vehicles counted were located in a bay or on a single yellow line and this should be presented separately. Where a CPZ would otherwise comprise a large proportion of the survey areas identified for residential and commercial development, a further walking distance of 400 metres/5 minutes should be surveyed beyond the CPZ.
8. Due to the concentration of blue badge bays on some residential streets, including within CPZs, parking within these bays should be recorded separately within the survey.
9. Only resident permit holder and shared bays should be counted, including those which may be shared with pay and display bays. To calculate parking capacity, the length of each parking bay should be measured and then converted into parking spaces by dividing the length by 5 (each vehicle being assumed to measure up to 5m) and rounding down to the nearest whole number. For example, a parking bay measuring 42 in length would provide 9 parking bays ($42/5=8.4=8$). The capacity of each separate parking bay must be calculated separately and then added together to give a total number of parking spaces for each road in the survey area. This will enable the overall count to provide a clear indication of parking space availability within as well as outside of restricted hours.

Areas not within a CPZ and other locations

10. Where there are significant lengths of road within the survey area where drivers are unlikely or unable to park, these should be identified and excluded from the survey. This will include:
 - Private roads
 - Dropped kerbs
 - Kerb build-outs
 - First 10m metres from a junction (or less where there are already junction protection measures in place)
11. The survey area may need to be increased where private roads comprise a large proportion of the original area identified. To calculate parking capacity, the same approach should be taken as that which is outlined above for CPZs.
12. Locations within the survey area which are located outside of the borough but are available for parking should be included but recorded separately. All areas of unrestricted parking should be counted.
13. The impact of any committed development in the area which has not yet been built out should be taken into account by estimating the on-street demand it is likely to generate and factoring in an appropriate allowance for this in the final survey.

Presenting the results

14. Location stamped photos will be required as survey evidence. The parking survey will not be accepted if this is not supplied. Survey counts should generally be presented in a format which shows the level of parking stress in both restricted and unrestricted areas:

Restricted areas

Street name	Total length of kerb space (m)	No. resident permit holder (RPH) parking spaces	No. cars parked in RPH parking spaces in restricted hours	Parking stress in restricted hours	No. cars parked in RPH parking spaces in restricted hours	Parking stress in unrestricted hours
Street A	259	44	38	86%	42	95%
Street B	344	60	46	77%	52	87%
Street C	301	52	20	38%	29	56%
Street D	176	29	25	86%	27	93%

Unrestricted areas

Street name	Total length of kerb space (m)	Length of unrestricted parking	No. parking spaces	No. cars parked on unrestricted length of road	Unrestricted parking stress
Street E	322	243	48	34	71%
Street F	517	417	83	52	63%
Street G	283	229	45	45	100%
Street H	346	304	60	51	85%

15. Stress levels of over 100% can be possible and should be recorded. This may, for example, be due to parking across dropped kerbs or because smaller cars may need less space than 5 metres to park.