South Gloucestershire Council

Density & Character Study
January 2022

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1. Introduction

Drivers

To meet the challenge of promoting the effective use of land set out in the National Planning Policy Framework (NPPF), South Gloucestershire is promoting a new approach to the development of a number of town centres, transport hubs and high streets. These areas are all accessible and generally provide a range of shops, services, and facilities. This is called the Urban Lifestyles approach.

The NPPF focusses on optimising land in accessible areas such as town centres. It also notes that the use of minimum density standards could be suitable for other parts of the plan area where the issue of how density will be approached could also be considered.

The optimisation of development seeks to balance the requirement to significantly increase densities, with the provision of attractive areas of public realm, open spaces and usable private amenity areas. This approach must focus on creating well-designed and appropriate developments, which maintain and respond to an area's character.

As well as the planning policy requirements mentioned above, there are a range of important reasons for developing this new approach, as follows.

- Ideas around emerging 15-minute 'walkable' neighbourhoods which allow greater accessibility to key services and facilities for pedestrians, including a reduction in the use of cars.
- Meeting climate change objectives and the UN Sustainable Development Goals (SDGs), set out internationally, and interpreted nationally by Government and locally by South Gloucestershire Council.
- Responding to changing patterns of working and living, partly brought about or accentuated by the impact of the Covid-19 pandemic.
- Contributing towards addressing the housing affordability crisis through the provision of a greater number of well-designed homes that meet

- the council's internal and private amenity space standards for urban areas.
- Aiding the process of economic regeneration and responding to challenges around changing high streets and shopping patterns.
- Improving the efficiency and effectiveness of both physical and social infrastructure provision.

Purpose

This Density & Character Study will form part of the evidence base for the new Local Plan to support the Urban Lifestyles approach. It will provide the case for a minimum density of development in Urban Lifestyles areas ensuring that it is contextual, appropriate and optimises opportunities to deliver new homes and high quality place-making. 'Optimisation' can be defined as developing land to the fullest amount consistent with all relevant planning objectives.

Scope

The areas listed below represent the most accessible centres within the local authority area. These urban centres and market towns are the study's focus for optimising density and creating well-designed developments.

Identified on the following map are the thirteen study areas showing their location within South Gloucestershire. The majority are close to the boundary with Bristol and are predominantly suburban in character.

Those on the north fringe are more recent suburbs whereas those on the east fringe tend to be villages and suburbs that started to grow in the Victorian era and are now part of Bristol's urban area. The exceptions are Yate, Chipping Sodbury and Thornbury which are established market towns with a range of facilities and services serving local residents and surrounding rural communities.

Bristol North Fringe Communities

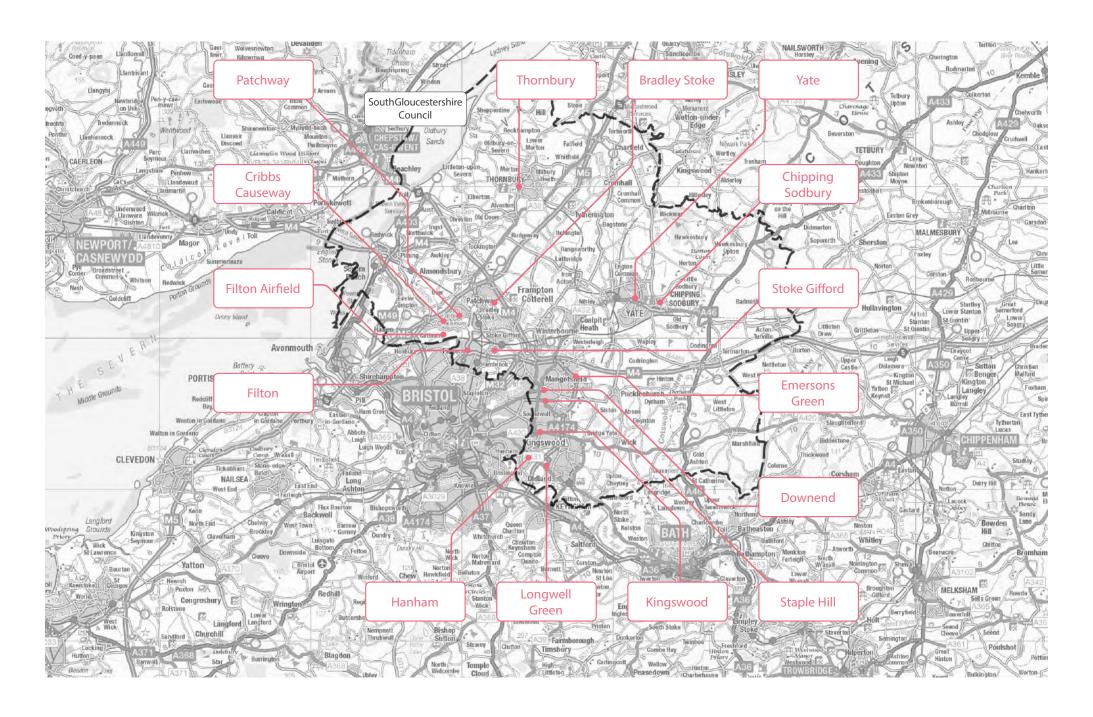
- Bradley Stoke Town Centre
- Cribbs Causeway
- Filton Town Centre
- Former Filton Airfield
- Patchway Town Centre
- Stoke Gifford

Bristol East Fringe Communities

- Downend
- Emersons Green
- Hanham
- Kingswood
- Longwell Green Retail Area
- Staple Hill

The Market Towns

- Thornbury
- Yate
- Chipping Sodbury



2. Approach

Character Studies & Area Typologies

Each of the fifteen named areas have had a character study undertaken, which are set out in the next section. These studies are split as follows:

- Character Studies: Large scale 'Area Plans' describing the broad assets and qualities of different neighbourhoods, including the identification of different 'Area Typologies'.
- Area Typologies: Detailed studies explaining the defining characteristics of the identified 'Area Typologies'

The character studies firstly set out key qualities, such as movement, open spaces, designation, schools and health centres, each fundamental ingredients to a neighbourhood. They also identify different area

typologies, reflecting the age, design, type of character and approaches to private amenity space, parking and public space prevalent in that area. These include, for example, Victorian terraces or contemporary urban extensions. These typologies are then separately explored in more depth in the Area Typologies section.

This study draws on, and expands, on information found within the South Gloucestershire Data and Access Profiles (DAPs) 2020.

Character Study 'Area Plans'

These depict the key urban qualities and assets of the settlement or area, such as road, rail and cycle paths alongside schools, town centres and designated protected areas such as conservation areas or nature reserves. The area typologies are identified on these plans.

These offer an insight into the character of streets and blocks. These areas are not a fine grained analysis, but instead reflect a broad picture of the prevailing types.

A more general difference between streets and blocks is identified, rather than detailed differences within and between streets and homes.

Assumptions have been made about the general period of development, and there may be some discrepancies in the study. This is due to the nature of the common approaches used and subtle differences in architecture and layout of 20th Century suburbs that at times are difficult to distinguish without detailed research. Therefore when considering development in given areas this study should be treated as a guide and further contextual study undertaken to inform proposals.

Area Typologies

These pages describe the character and distinctive qualities found within each of the identified typologies. These set out the key qualities and features; in particular distinguished by:

- Prevailing Form (e.g. shape and height)
- House / Building Types (e.g. detached, semidetached, terraced houses or apartment blocks)
- Period (e.g. interwar or late 20th Century)
- Public Space / Streets (e.g. green spaces)
- Layout (e.g. cul-de-sacs or straight streets)
- Parking Configuration (e.g. on driveways or onstreet)
- Private Amenity Space (e.g. gardens or balconies)

These are based only on observations found within the study area and not elsewhere. For instance, though some typologies are influenced by the arts and craft styles and the garden city movement, there are not strong and extensive examples of these characteristics within the named areas despite coming to prominence

in past growth of these areas. Therefore, they do not feature among the Area Typologies explored.

Each character study has a portion (%) of different area types. This portion is a percentage of that which is shown within the study area only and not more generally, such as across the whole neighbourhood. The main types are shown on the study pages with a full breakdown within the "Area Type Table" on page 103.

Measuring Density

The concentration of homes in a set area is known as density. Conventionally suburbs are found to be lower density and city centres are higher density. The more compact a development or place is the higher its density. Measuring density, using Dwellings per Hectare (dph), is useful in order to compare and identify the appropriateness of new development relative to the opportunity and its context.

Measuring density, at its simplest, is the number of homes within an equivalent area. For instance, within an area of 100m x 100m, that is 1ha, there may be 35

houses. This would be a measure of 35dph. This can be expressed as:

Number of Homes (dwelling units or 'du')

- ÷ Sample Area (hectares or 'ha')
- = Density (dwellings per hectare or 'dph')

This simple method has two key weakness as the figure can be distorted by:

- Other uses such as shops, offices and industry (or anything else that is not a 'home').
- Infrastructure and protected spaces such as main roads, schools, parks and nature reserves (or any area that may not be thought of as appropriate or 'developable' for homes).

These weaknesses are likely to distort measures creating difficulty in using the result to compare areas from one neighbourhood to the next or one proposal to its existing context.

For instance, one may find measuring a cul-de-sac of bungalows equates to 10dph but when measuring a parade of shops, that includes homes above with a handful of shops on a main road, this could also equate to 10dph. These two scenarios may produce

very similar measurements but be very different built environments. Therefore using this simple method would not be a fair representation of different types of streets and neighbourhoods.

The McCreanor Lavington Method addresses these two weaknesses, by taking into account mix of uses, infrastructure and protected spaces. This method has been applied throughout this study to produce a reliable comparable figure and impression of density within the named areas.

This method addresses the aforementioned weaknesses by:

 Factoring a ratio of homes and other uses. This is done by understanding the total floor area and the ratio between residential and other users. This can be expressed as:

Residential Floor Area (m²)

- ÷ Total Floor Area (m²)
- = Residential Ratio
- Defines 'gross area' and what should be excluded to find a 'net area', such as excluding physical and social infrastructure (such as main roads and

schools) and protected spaces (such as parks and nature reserves). This method also specifies that area measures, where bounded by streets, should use the street centre line as its edge. This can be expressed as:

Gross Sample Area (ha)

- Strategic Infrastructure (ha)
- = Net Sample Area (ha)

In the example of bungalows and a parade of shops using a ratio of homes to other uses would increase the density figure, and reduce the total area included in the measurement. The result would be a low figure for bungalows and a higher figure for the parade of shops that better reflect the character, compactness and intensity of development.

The McCreanor Lavington Method has emerged as the conventional approach for measuring density. It originated in the GLA's Housing Density Study carried out by McCreanor Lavington in 2012. For example, it is used by Bristol City Council in its Urban Living Supplementary Planning Document (SPD) Adopted 2018 (Appendix 1), the Greater London Authority (GLA) in the Housing Design Guide Supplementary Planning

Guidance (SPG) 2016 and is mirrored in the description of density within the National Model Design Code June 2021 (both Part 1 and Part 2: Guidance Notes).

For the study, each area typology has a density range that has been calculated using sample areas within each type. A 1-2ha sample of a given area typology, on an OS Detail Plan with the number of homes retrieved from the Property Gazetteer (a register of all residential and commercial addresses).

The calculation for density can be expressed as:

Number of Homes (du)

- ÷ (Net Sample Area (m²) x Residential Ratio)
- = Density (dph)

To change from gross to net sample areas the net area excludes:

- Main roads such as A and B classifications and those acting as strategic distributors within the urban area.
- Railways and stations.
- Schools, including playing fields and parking.

- Parks, equipped play areas, public amenity spaces and sports pitches that serve the neighbourhood and wider community.
- Public car parks.
- Landscape buffers and protected open spaces.
 Includes those with environmental designations, such as Sites for Nature Conservation Interest and Local Nature Reserves.

The net sample areas can include:

- Streets and access roads within the site, or those low order streets that provide a link from main roads (excluded) to the front door.
- Private or communal garden spaces.
- Resident and visitor car parking areas.
- Incidental open space and complementary landscaping
- Door step play and open space that is only meaningfully used by immediate neighbours.

For mixed use schemes the measured sample area is pro rata. The ratio is calculated by measuring an

approximate total floor area from an OS Detail Plan and the identification of residential and other uses, such as retail. This ratio is the proportion of the total floor area, which is attributable to residential use (i.e. homes). This ratio is used to modify the net sample area.

Examples of how this has been done can be found within "Town Centre Sample Densities" on page 99. Many of the area typology samples that were taken included only homes, as many area types are out-of-centre or suburban in nature.

The McCreanor Lavington Method provides a robust approach to measuring density by providing a comparable figure that provides a good impression of differences between built scale, building form and central, urban, suburban and rural areas.

Density (dph) from a spatial analytical point of view is not (and arguably cannot be) perfect. Measuring spatial areas entails a number of possible issues such as boundary, scale, changeable sample size (modifiable areal unit) and pattern (spatial autocorrelation) problems. Therefore this density measure is only an impression of an area.

As the measure is not perfect it is often not useful, or meaningful, to compare say 58.1dph and 59.8dph and imagine differences in character, scale, form and compactness of development. It is possible to understand differences in character and compactness of development between say 50dph and 70dph.

It can be said that density is not a reliable measure when considering fine grain issues and is best suited when considering broad picture issues. Reflecting this density within the study is it is expressed as a range or rounded to a multiple of 5, such as 60-70dph or 65dph.

Measuring Intensity

Complex and mixed use areas, such as high streets and urban centres, can be problematic when comparing density figures as distortions can emerge when using a residential ratio or when different approaches and points of view can be taken for including or excluding strategic infrastructure and open space.

Floor Area Ratio (FAR) provides another indication for the intensity of development and activity. An average FAR has also been calculated for:

- Thornbury
- Yate
- Kingswood
- Victorian-Edwardian High Street (which include Staple Hill, Kingswood and Hanham)

This is calculated by dividing the gross floor area of a building by the plot area. This is referenced in the National Model Design Code June 2021 as 'Plot Ratio'. The calculation can be expressed as:

Total Floor Area (m²)

- ÷ Plot Area (m²)
- = Floor Area Ratio (FAR)

As the method only requires plot area and total floor area it does not include aspects that could distort the figure such as a mix of different uses, streets and public spaces. Therefore it is often more reliable to compare closely aligned figures such as say 1.25 and 1.35 to understand compactness of development and robustly

conclude the latter is a more efficient use of land over similarly closely aligned impressionistic figures such as 50dph and 55dph.

This calculation does not share the weaknesses of the density measure, although it is not as widely used. This calculation offers an additional comparative measure that can be used when assessing context, existing development and new proposals.

Case Studies

A series of 10 case studies have been compiled, which reflect a range of good quality schemes and densities that could be appropriate to the opportunities found within the named areas.

Density has been calculated, for each case study, using the same McCreanor Lavington Method used when measuring the area typologies. The case studies focus on the design techniques used to provide information on:

- Private Amenity Space
- Public Space & Frontages
- Parking Approach

These aspects are important to a sense of place and are critical in creating successful Urban Lifestyle developments for residents. The careful consideration and incorporation of these aspects underpins high living standards and raises the liveability of new homes.

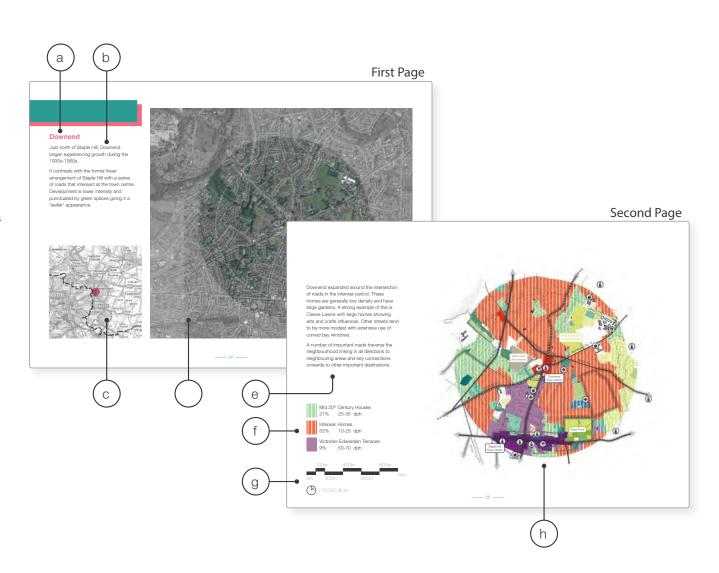
The case studies illustrate what different densities can look like on different sites, in different areas. These demonstrate that making more efficient use of land and increasing density does not mean building tower blocks, or a one-size fits all approach to development.

3. Character Studies

Each Character Study follows the same format, set across two pages. The first includes an aerial photo and the second the detailed study. The detailed character study (h) only shows a legend (f) for the main area types found. The full legend is common amongst all studies (h), and is set out on the following two pages.

The aerial photo (d) and detailed study (h) are located at the same point on the two pages. This means that a feature, say a street, can be found in the same place.

- (a) Named Area
- (b) Overview Description
- c Location Plan
- (d) Aerial Photo
- (e) Character Description
- f Main Area Types
- g Scale
- (h) Detailed Character Study



The legend is common among all drawings in this section. The descriptions on this page are not found on the drawings themselves.

To aid the reader:

- Black & White are the urban qualities, assets and designations
- Green are the types of open space
- Colours (besides green) are the Area Typologies





- Connecting Streets
- Major & Strategic Cycle Routes
- Metrobus Route
- Bus Route







Listed Buildings



Important Buildings



Key View



Town Centre Boundary



Major Consented Proposals





- Secondary School
- Convenience Store
- Supermarket
- 800m Radius Centre Point











Allotments

School Playing Fields

Sports Fields & Pitches

Amenity Open Space

Parks & Gardens

Natural & Semi Natural Open Space

This legend identifies the area typologies found within the character studies. These are detailed in the Area Typologies section. Extracts of this part of the legend are found on the drawings indicating the common types of character found in those named areas. The density ranges shown on this page are typical to those Area Typologies.

Houses

Suburban homes generally comprising of detached and semi-detached types in differing layouts and density.

	Contemporary Houses	30-40dph
l l	_ate 20 th Century Houses	25-35dph
	Mid 20 th Century Houses	25-35dph
	Radburn Homes	20-35dph
i i	Postwar & Prefab Housing	20-30dph
	nterwar Homes	10-25dph

Apartments

Purpose built apartment complexes; not integrated with other types of development or uses.

Contemporary Apartments	90-110dph
Late 20 th Century Apartments	120-140dph
Mid 20 th Century Apartments	40-60dph

Compact

Development generally comprising a mix of residential typologies and more compact urban form. These areas can include both terraces and apartments.

	Contemporary Responsive	50-60dph
	21st Century Urban Extension	50-60dph
	Late 20 th Century Mix	40-60dph
	Mid 20 th Century Mix	40-60dph
	Victorian-Edwardian Terraces	50-70dph

Mixed Use & Centres

Mixed use buildings, often as part of town or local centres. Typically ground floor retail. Includes both purpose built parades and adapted buildings.

Victorian-Edwardian High Street	50-80dph
Interwar Parade	30-40dph
Mid 20th Century Parade	70-90dph
Historic	25-70dph

Single Use Areas

Single use development, not including homes, often low rise, 'out of town' and car dominated.



Bradley Stoke

Bradley Stoke is a late 20th century planned community. Sinuous access roads connect a series of cul-de-sacs creating a convoluted layout and indirect routes into and out of the neighbourhood and to the town centre. Access roads tend to lack a frontage and a street address as homes turn away focusing frontages on clusters, short streets and cul-de-sacs.



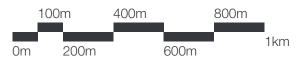


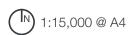
Bradley Stoke is dominated by late 20th century homes. These tend to be detached homes set over two floors with private driveways and garages.

The nature reserve provides a large expanse of green space. There is relatively less provision of other sizeable open spaces, to support group activities, sport, play and different open settings.

The town centre is an arrangement of box retail units set within surface car parking and excluding residential, with nearby clusters of apartments. Walking and cycling is discouraged due to indirect routes and sinuous streets or dead end cul-de-sacs.







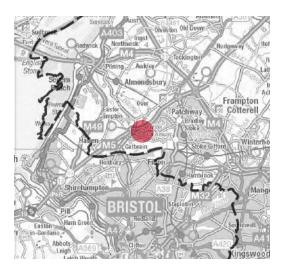


Cribbs Causeway

Cribbs Causeway is a large out of town retail park of regional importance. The centrepiece is 'The Mall', an indoor shopping centre surrounded by surface car parking. The area is primarily retail with some distribution centres and warehouses.

Adjoining there are the Patchway and Charlton Hayes neighbourhoods as well as more recent housing developments at various scales being developed as part of the Cribbs Patchway new neighbourhood.

To the south is the forthcoming Brabazon development, sited on what was the Filton Airfield.





The Mall, located at the centre of the study area is arranged in two wings bookended by large anchor stores. This is set within a large expanse of surface car parking and encircled by main roads. Much of the surrounding area is of a similar nature and arranged as large retail or employment uses.

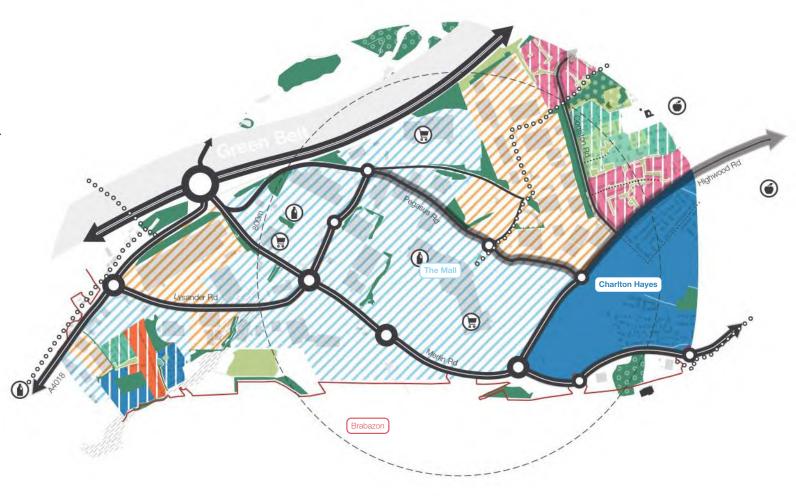
There is a lack of features, that you might find in a residential area, such as public realm, open spaces, play and social infrastructure (such as schools).

Patchway and Charlton Hayes, have limited choice of walking and cycle routes into and out of the area as well as limited routes to and from key bus stops, The Mall and its central bus station.







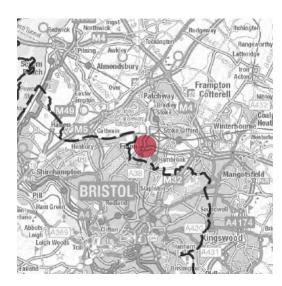


Filton

Filton was a village outside Bristol, which greatly changed with industrialisation and 20th century growth.

Growth occurred alongside the success of the former airfield. BAE Systems and Airbus remain major employers occupying the office and industrial campus to the west.

The former village of Filton has largely been lost though there are some remnants, including St Peter's Church, dispersed in and around the town centre, itself arranged and remade to prioritise cars in the mid-late 20th century.



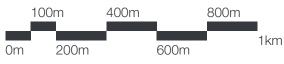


Filton comprises mostly Interwar Homes. The earliest examples of the architecture and layout is in the southwest. These are large semi-detached bay fronted homes set over two floors and within (relatively) large front and rear gardens. There are a mix of connecting streets and cul-de-sacs where street trees are common.

To the east of Gloucester Road homes are more frequently arranged as short rows as well as semi-detached. Parking is varied, some on-street and some within private drives and garages.

The railway lines and expanse of industry create barriers to the east, north and west. These barriers favour car use and do not encourage walking and cycling to neighbouring communities and facilities.





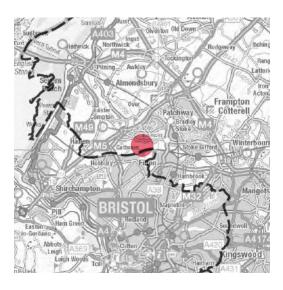




Former Filton Airfield

Filton Airfield is a disused airfield with planning permission for the Brabazon community. The outline consent comprises of over 2,600 homes. However, recent developments could lead to an amended scheme, potentially for a more compact and higher density proposal.

Occupation of the first phase commenced in 2021. Planning permission has also been granted for the conversion of the former Brabazon Hangar to the south of the site into an arena with employment and retail uses.



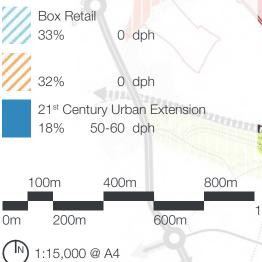


The former airfield is generally vacant whereas the surroundings are generally dominated by single uses including retail, employment and industry.

New stations are proposed for the rail line set to better connect the area to Bristol.

There are a limited number of existing and possible connections particularly around the south and the west of the study area. Presently the study area lacks easy access to major and strategic cycle routes.

There are no schools, health centres and public spaces in the immediate vicinity necessitating the use of a car.





Patchway

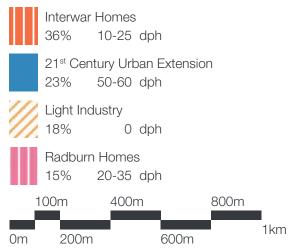
Patchway started as a village to the east of this study area and subsequently saw its growth westwards with the arrival of major industry in the 20th century.

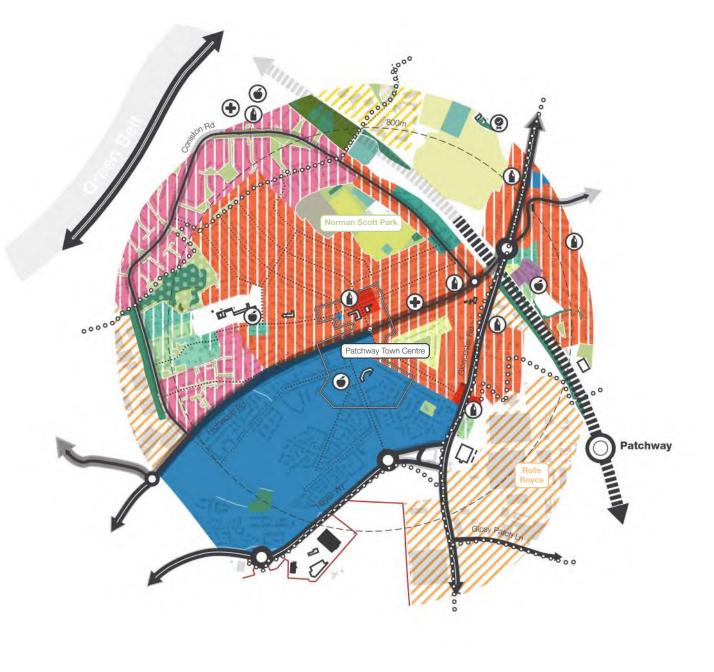




Patchway's character is generally split into three distinct styles. The first is the planned neighbourhood from the interwar period, comprising a series of long streets and rows of bay fronted homes set over two floors. The second is the Radburn style (to the north), comprising plain two floor homes set within green spaces. This third is the contemporary and higher density urban extension of Charlton Hayes with a choice of different house types to the south.

Walking and cycling access to Astec West (office park), Cribbs Causeway and Patchway Station and neighbouring areas are limited by the strategic road and rail network and layout of development.





Stoke Gifford

This area between Stoke Gifford & Harry Stoke saw significant growth in the late 20th century, including the construction of Bristol Parkway station in the north, and the expansion/ introduction of major employers and institutions including the University of the West of England (UWE), Ministry of Defence and City of Bristol colleges.

The area tends of be of a campus style, with pockets of inward facing, disjointed activity separated by large roads and green infrastructure.





Although the area comprises some small pockets of housing (some of which is under construction), much of the area is dominated by large employers and institutions set within their own campuses, which are poorly related to surrounding streets.

Overall the area is well connected, being in close proximity to a major railway station, Bristol Parkway, as well as cycle and bus routes.



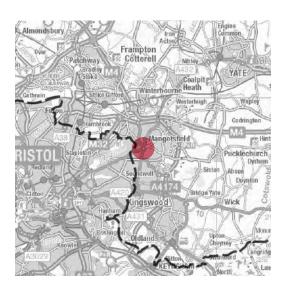
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Downend

Just north of Staple Hill, Downend began experiencing growth during the 1930s-1960s.

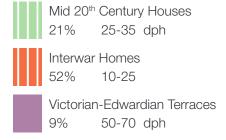
It contrasts with the formal linear arrangement of Staple Hill with a series of roads that intersect at the town centre. Development is lower intensity and punctuated by green spaces giving it a 'leafier' appearance.

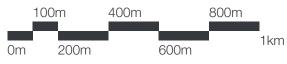




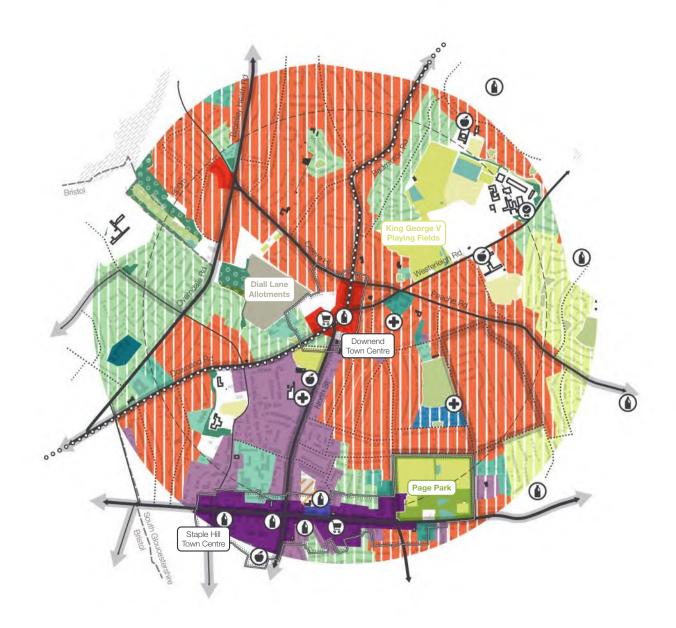
Downend expanded around the intersection of roads in the interwar period. These homes are generally low density and have large gardens. A strong example of this is Cleeve Lawns with large homes showing arts and crafts influences. Other streets tend to be more modest with extensive use of curved bay windows.

A number of important roads traverse the neighbourhood linking in all directions to neighbouring areas and key connections onwards to other important destinations.









Emersons Green

A suburb built out in the 1990s. Sinuous access roads connect series of cul-de-sacs creating a convoluted layout and indirect routes into to the town centre and out of the neighbourhood. Access roads tend to lack a frontage and street address as homes are clustered onto short streets and cul-desacs.

The neighbourhood was further extended from the 2010s, by the Lyde Green and Science Park development.



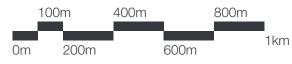


Emersons Green mostly comprises of two floor detached houses arranged in cul-desacs, separated from key roads.

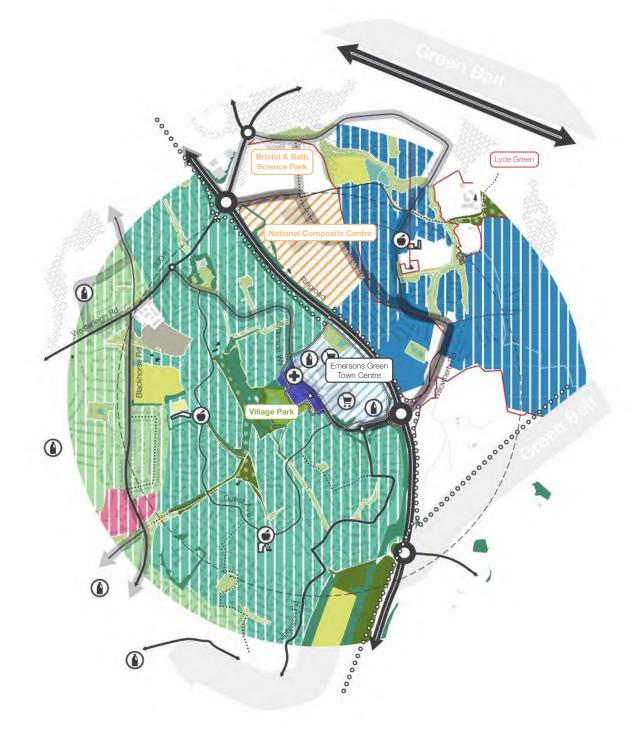
The town centre has a series of residential streets that lead to a small scale parade of shops, and a park, with large retail and surface parking facing the ring road.

More recent development radiates from the town centre to the northeast. The layout is car dominated. The ring road is a barrier, splitting the two halves of the neighbourhood, the town centre and new employment uses (including the Science Park and National Composites Centre).



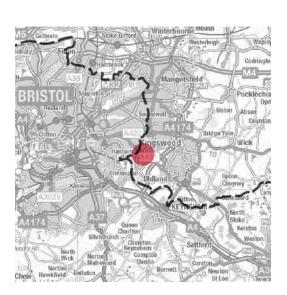






Hanham

Hanham saw moderate growth in the Victorian Era, sited on the road between Bristol and Bath. Its growth mostly occurred in the mid 20th century.





Hanham High Street is generally Victorian-Edwardian in character. Conversely much of the growth of the area appears to be in the mid 20th century with streets of semi detached and terraced homes.

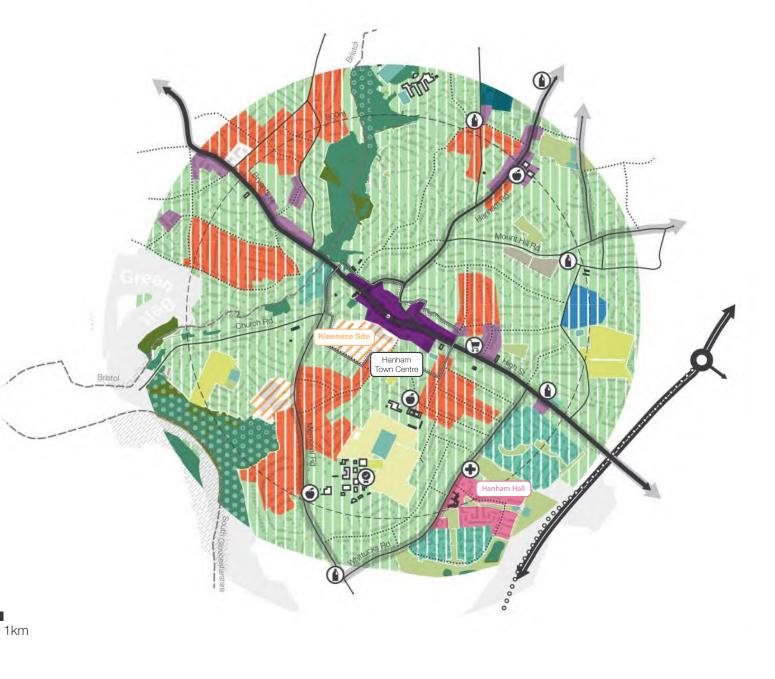
Hanham features the Hanham Hall development, a exemplar project that achieved high sustainability credentials and is of a good design quality. This area (Hanham Hall) is further explored on page 51.



400m

600m

800m



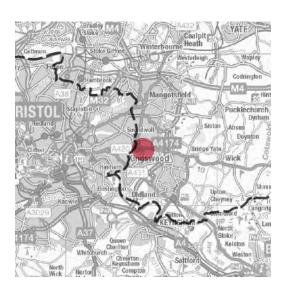
200m

100m

0m

Kingswood

Kingwood started growing in the Victorian Era on one of the key routes heading east out of the City of Bristol. Much of its growth occurred in the 20th century.

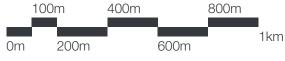




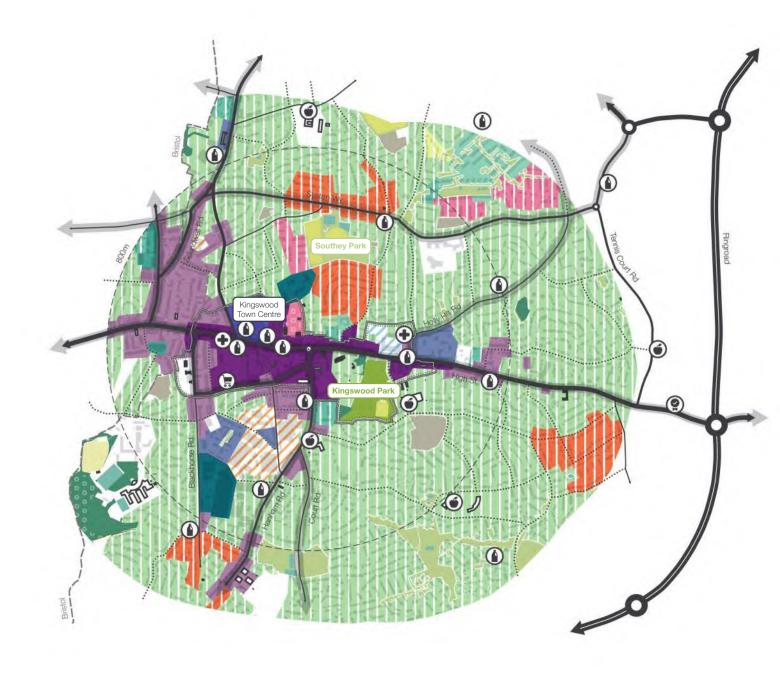
Kingswood is dominated by homes developed during the middle of the 20th century. This means the Victorian centre and terraces quickly give way to low density semi detached housing. Streets connect to each other but they are sometimes curved and indirect. Nevertheless, this creates a well connected, permeable neighbourhood and an accessible town centre and central park.

There is a good spread of amenities focused around the town centre, though there are a lack of established cycle routes.



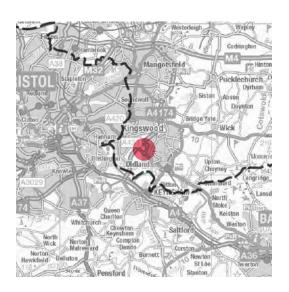






Longwell Green

Though close to Hanham it is separated by the Bristol Ring Road. The centre of Longwell Green is primarily comprised of out of town leisure and retail and orientated towards car users.





The area is primarily mid-late 20th century houses, a mix of semi and detached homes arranged on curved streets. There is an array of open spaces and amenities.

The centre is segregated from the surrounding community, without many points of access for walking and cycle with few connecting streets.

Bristol's Green Belt penetrates into the study area.





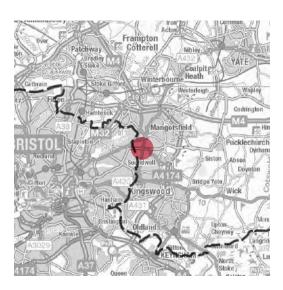




Staple Hill

Staple Hill grew during the Victorian era with the arrival of the railway. The now disused railway forms part of the strategically important Bristol and Bath Railway Path.

Staple Hill is arranged around a central cross roads with the centre stretching east and west. The town centre terminates at Page Park at the eastern end. The neighbourhood (and this study area) immediately abuts Downend to the north.





Staple Hill's centre is sizable and comprises mostly Victorian and Edwardian buildings, enclosing the High Street. These buildings are generally arranged over two to four floors within short parades and terraces. Side streets of Victorian and Edwardian terraces extend to the west and north.

In contrast to the compact terraces interwar homes are arranged as semi detached homes with relatively large front and rear gardens.

Interwar Homes 48% 10-25 dph

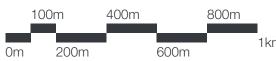
Mid 20th Century Houses

24% 25-35 dph

Victorian-Edwardian Terraces
10% 50-70 dph

Postwar & Prefab Housing 8% 20-30 dph

Victorian-Edwardian High Street 3% 50-70 dph





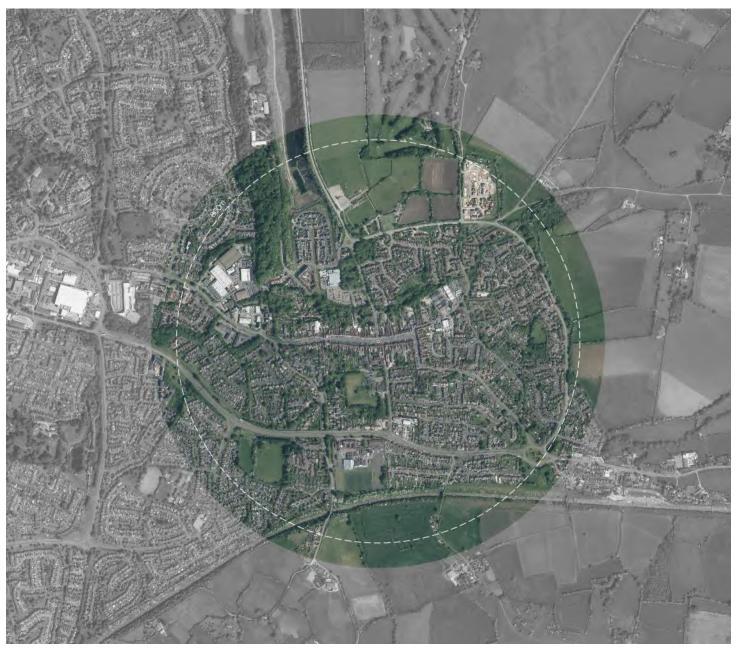


Chipping Sodbury

Chipping Sodbury is a 12th century market town centred on its historic High Street. The town is contiguous with Yate to the west, but with a distinct character and built form.

The eastern extent of Chipping Sodbury gives way to rural countryside and the setting of the Cotswold Area of Outstanding Natural Beauty (AONB).





Historic Chipping Sodbury is centred on the linear high street running east-west. To the west the housing and layout style is reminiscent of Yate with a significant portion of Radburn Homes.

Generally streets and housing encompass a mix of styles and periods, but are generally arranged over two floors, include a front garden and comprise semi or detached houses within short streets or cul-de-sacs. These do not extend far north, east, or south from the town centre.



17% 25-35 dph

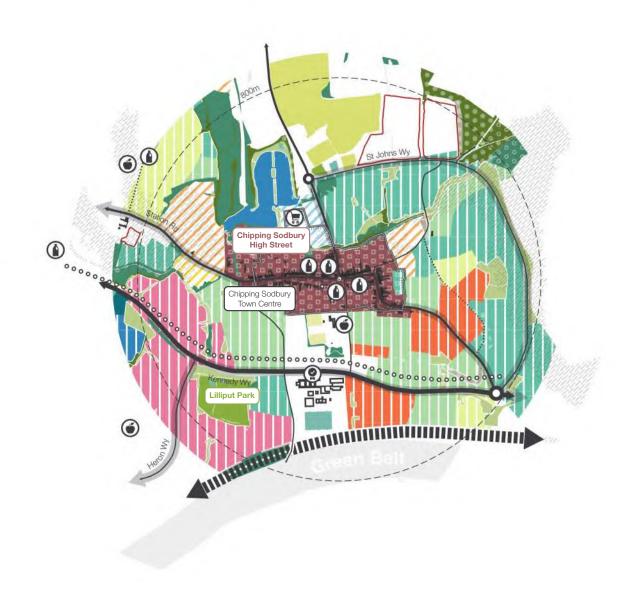
Radburn Homes 16% 20-35 dph

Historic 12% 50-70 dph

Light Industry
6% 0 dph





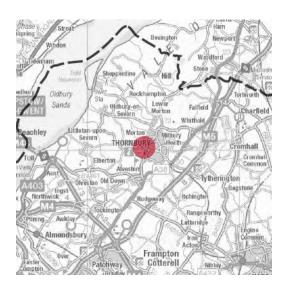


Thornbury

Thornbury is a market town that came to prominence around St Mary's Church, which was founded in the Norman era, and Thornbury Castle, a Tudor country house.

The town is mostly centred around Castle Street and the High Street, forming a linear settlement that then radiated eastwards during the 20th century.

The market town has not historically grown south and westward due to presence of Green Belt, flood plains and heritage assets

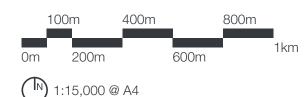




The High Street and Castle Street constitute the historic centre. This gives way to suburban housing to the east, which generally comprise short rows of semi or detached housing with sizable gardens.

There are a small number of recent developments that have been designed sensitively to reflect the conservation area and nearby listed buildings. These are generally of more compact form, at times 3-4 floors.







Yate

Yate has some evident historic origins including St Mary's Church but is best known as a 'new town' with rapid growth in the 1950s onwards.

The town grew from a village with the arrival of the railway and growing industry. Today activity is spread east-west between the railway station and the main shopping centre, connected by station road.

Yate Common is a large area of green to the southwest and there is an expanse of industrial and employment uses to the west of the railway line.





Housing layout, over the periods, is generally influenced by the Radburn approach. There are a high number of green spaces and green routes through different areas of housing.

Housing is generally arranged on sinuous, curved and indirect streets creating 'deadend' areas that can discourage walking and cycling.



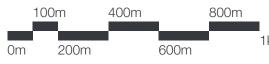
Late 20th Century Houses 25% 25-35 dph

> Radburn Homes 16% 20-35 dph

Mid 20th Century Houses 11% 25-35 dph

Postwar Prefab Housing 9% 20-30 dph

Shopping Centre 2% 90-130 dph





4. Area Typologies

The following area typologies are found within various character studies. The following pages set out a detailed study of the most notable types. These are set across two pages, each formatted in the same way, as explained here.

- (a) Area Type
- (b) Overview Description
- C Density (dph) & Floor Area Ratio (FAR)*
- d Land Budget
- (e) Aerial Photo
- f Scale
- g Land Budget Legend
- h Character Study Reference
- (i) Measures & Qualities Summary
- j Distinguished Qualities & Features

*Floor Area Ratio not measured for all area types

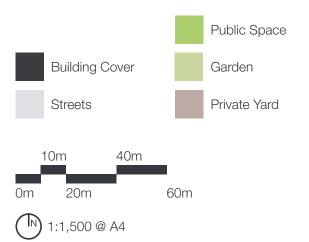
d С а b First Page 50-60dph Victorian-Edwardian Terraces Late Victorian and Edwardian streets compris that were generally built for workers and the emerging middle class. These were often built on linear streets in regular rectangular blocks. These homes have single or two bay-frontages repeated to create a strong street rhythm and order. Second Page Some are embellished with a bay window with most featuring front gardens and boundary walls. These terraces were not laid out with integrated and incidental green spaces. The thinking of the time was to provide large formal parks, with good examples in Kingswood and Staple Hill that cater for leisure, play, enjoyment and (some) sports. Victorian-Edwardian Terraces Public Space Narrow gardens are found to the rear of homes. The nerally set over two floors Kingswood, Staple Hill & Hanham can be long and greer others are short and akin t Jany have been extended to the loft space or to the ear. Generally homes are between 2-3 bedrooms. Period 1880s-1910s Height 2 Floors enerally shallow garden adapted to include cycle or waste stores or, where ossible, parking. Some Front Garden Shallow d1-2m nomes do not have a front g Public Spac larrow frontages generally Terraces are generally four Block Width 40m-60m near large formal parks an omprise of 1 or 2 bays, do not integrate incident ome with bay windows. Block Denth 35m-55m green spaces. Some stree This repeating pattern to Materials Stone & Brick Dressing feature trees planted in th reates a strong street irst floor often has a subtle

Victorian-Edwardian Terraces

Late Victorian and Edwardian streets comprise homes that were generally built for workers and the emerging middle class. These were often built on linear streets in regular rectangular blocks.

These homes have single or two-bay frontages, repeated to create a strong street rhythm and order. Some are embellished with a bay window with most featuring front gardens and boundary walls.

These terraces were not laid out with integrated and incidental green spaces. The thinking of the time was to provide large formal parks, with good examples in Kingswood and Staple Hill that cater for leisure, play, enjoyment and (some) sports.



50-60dph



Character Study Area Type



Thicket Road, Railway Terrace & Clifford Road, Staple Hill

Victorian-Edwardian Terraces

Found in:

Kingswood, Staple Hill & Hanham

1880s-1910s Period

2 Floors Height

Building Type Terraces

Parking Type On Street

Parking Amount 1 per Home

Rear Garden Narrow d15m

Front Garden Shallow d1-2m

Building Line Continuous Aligned

Street Width 10m-14m

Street Setback

Block Width 40m-60m

Block Depth 35m-55m

> Stone & Brick Dressing Materials

Amenity Space

Narrow gardens are found to the rear of homes. These can be long and green, others are short and akin to courtyards.



House Types

Arranged in a row and generally set over two floors with a narrow frontage. Many have been extended into the loft space or to the rear. Generally homes are between 2-3 bedrooms.



Parking

All parking is unallocated, on street and configured as parallel bays.



Thresholds

Generally shallow garden with a front wall. Some are adapted to include cycle or waste stores or, where possible, parking. Some homes do not have a front garden and open onto the footway.



Public Space

Terraces are generally found near large formal parks and do not integrate incidental green spaces. Some streets feature trees planted in the footway.



Elevations

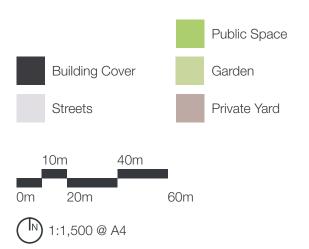
Narrow frontages generally comprise of 1 or 2 bays, some with bay windows. This repeating pattern to creates a strong street rhythm. The ground and first floor often has a subtle difference of treatment.



Victorian-Edwardian High Street

The main streets of Staple Hill, Hanham and Kingswood feature a mix of purpose built shopping parades, homes and small working yards developed in the Victorian-Edwardian eras. This character prevails though mixed with various modern interventions and adaptations. These changes include homes turned into shops with flats above, mid century shops (with no homes) or rear yards turned into parking, workspaces or large retail units.

Generally these areas have strong enclosed streets, direct onto a moderately wide footway, with active frontages. The more vibrant parts of these areas are well integrated into the surroundings, benefiting from frequent side streets.



70-110dph*

1.6 FAR (Floor Area Ratio)









High Street & Broad Street, Staple Hill

Victorian-Edwardian High Streets

Found in:

Staple Hill, Hanham & Kingswood

1870s-1970s Period

Height 1-4 Floors

Building Type Parades & Terraces

Parking Type Rear Yards

Parking Amount 1 or less per Home

Rear Garden N/A

Front Garden N/A

Building Line Continuous Aligned

Street Width 10m-14m

Street Setback

Block Width 60m

Block Depth

Stone with Brick Dressing Materials

Servicina

Shops are generally serviced from the rear where shops can unload, manage waste and staff (or residents) can park. These yards take the place of gardens.



Homes

Homes are often found on the upper floors and generally accessed from the rear on external stairs. These flats are generally dual aspect, on first and second floors, and between 1-2 bedrooms.



Parking

Parking is generally found off the main street, on side streets, dedicated surface car parks or at the rear of properties.



Frontages

Ground floors tend to be occupied by shops and leisure. At times there are combined units for larger shops. These are direct onto moderately wide footways.



Public Space

Large parks are found in Staple Hill and Kingswood. These are well appointed for play, sports and gatherings amongst formal planting. Hanham does not feature a large park.



Modern Infill

Insertions on the street tend to be between 1-2 floors and do not always feature homes above. These tend be set further back from the street creating more public realm.



Radburn Homes

This distinctive layout reverses the conventional street pattern to have front doors face green routes that open out onto large expanses of green. Parking and vehicular access is to the rear. Homes are set back from sweeping distributor roads that connect the neighbourhood.

Examples range from the 1950s-60s where architecture is plain and austere. In Yate the layout continued to be used and modified until 1980s and features more embellishments, planting and architectural details.

This layout has inadvertently led to many homes being unconventionally used such as frequently arriving and leaving from the rear and causing the front to be relatively inactive.



20-35dph







Wye Court, Thornbury

Radburn Homes

Found in:

Patchway, Thornbury & Yate

Period 1950s-1970s

Height 2 Floors

Building Type Terraces & Semi Detached

Parking Type Rear Streets & Garages

Parking Amount 2 or more per Home

Rear Garden Modest d15m

Front Garden Modest d3-6m

Building Line Fractured Aligned

Street Width Rear 7m & Front 6m-20m

Street Setback N/A

Block Width 80m-120m

Block Depth 40m-60m

Materials

Amenity Space
Rear gardens are
moderately wide and long,
though often punctuated
by parking or a garage.
These back onto the access



House Types
Homes are g
over two floo
rows. Genera
between 3-4

House Types
Homes are generally set
over two floors in short
rows. Generally homes are
between 3-4 bedrooms.

Parking

street.

Most parking is located on rear streets, courtyards and garage blocks. This concentrates cars behind properties and can at times feel unsafe and uncomfortable for pedestrians.





Thresholds

Homes front onto green routes and with front gardens blending into these green spaces (absent of any boundary). Front doors often have porches or canopies.



Green routes generally lead to open public spaces. These tend to have limited planting and generally absent of play equipment, seating and other features.





Elevations

Architecture is relatively austere with a uniform two bay order with the use just one material.

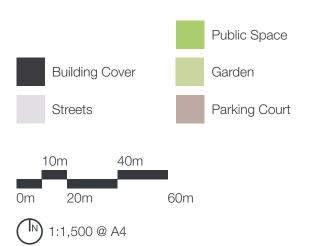
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Apartments

Apartment complexes within the study area are generally isolated. These purpose built apartments generally feature 2-4 apartments per floor around a single stairwell and main door.

Mid 20th century examples are generally surrounded by green public open space, though often just grass without activity, and segregated parking with garage blocks. The abundance of surrounding green space means these developments are often fairly low density.

Recent and contemporary examples starting in the Late 20th feature more private and communal gardens, adjacent parking and balconies above ground. These examples occupy more compact sites resulting in a higher density of development.



40-140dph



Character Study Area Type



Cabot House & Thames House, Thornbury

Contemporary Apartments

90-110dph

Mid 20th Century Apartments

40-60dph

Found in:

All areas (in small clusters)

Period 1960s-2010s

3-4 Floors Height

Apartment Cluster **Building Type**

Parking Type Garage Blocks & Courtyards

Parking Amount 1 or less per Home

Rear Garden N/A

Front Garden N/A

Building Line Individual

Street Width 14m-20m

Street Setback 6m-20m

Block Width 60m

Block Depth 60m

> Materials Stock Brick with Render or

> > Clapboard

Amenity Space

Surrounding green space often plain without activity and unenclosed. Balconies or gardens are not common.



House Types

Homes are often of a single type and identical configuration. They are often just 2 beds but larger or more contemporary developments feature some small variations including 1 and 3 beds.



Parking

Most parking is located on rear streets, courtyards and garage blocks. This concentrates cars behind properties and can at times feel unsafe and uncomfortable for pedestrians.



Thresholds

Each building has a single front door, often obscure from the street. There are often no boundaries or edges to delineate space or protect privacy at the ground floor.



Form

Apartments are generally set out 2-6 per floor, over 3-4 floors. These buildings are detached; located in open space set back from streets.



Exceptions

Staple Hill Hayne's Lane and Norman Road is a purpose built council estate featuring large 'slab' buildings set over 3-6 floors with deck access and balconies, c100dph. There are c70 homes per block.





Hanham Hall

Hanham Hall was a flagship for the Carbon Challenge, an initiative in the 2000s, aimed at delivering zero carbon homes. It is a held in high regard having met the then Code for Sustainable Homes level 6 (the highest accreditation at the time) and winning the Housing Design Awards 2014.

Homes are found around a principle street and green space before retiring to rear mews courts that are pedestrian priority. The distinctive architecture is characterised by white render with timber brise soleil and shutters.

Sustainability measures include solar PV, control of solar gain with shutters and brise soleil, swales, added biodiversity and combined heat and power.





(N) 1:1,500 @ A4

50dph







Roman Way, Hanham

Hanham Hall

Found in: Hanham

> 2000s Period

Height 2-4 Floors

Building Type Apartments, Terrace &

Detached

On-street, Garages & Parking Type

Courtyards

Parking Amount 1 per Home

> Rear Garden Modest d8m-14m

Front Garden Shallow d1m-2m

Building Line Fluid Aligned

Street Width 10m-20m

Street Setback 1-2m

Block Width 60m-80m

Block Depth 60m-80m

Materials White Render with Timber or

Zinc Accents

Amenity Space

Besides rear gardens for houses apartments are generally provided with projecting balconies of a size to be useful and well used.



House Types

A balanced mix of detached larger homes, terraces, coach houses and apartment clusters. These are intermixed and complement the street layout. This offers a spread of different size homes.



Parking

Parking is mixed between on-street, courtyards, coach houses and within small concealed rear courtyards. Parking tends to be interspersed with landscaping and planting.



Thresholds

Front doors are generally recessed or covered. A narrow landscaped strip provides a buffer to the street without the use of a boundary wall. Projecting structures also contribute to the frontages.



Public Space

Green routes, with streets to one side, provide for swales, heritage features and areas for safe spontaneous play. These lead and connect onto larger open spaces.



Elevations

Distinctive use of timbers for shutters and brise soleil. Large windows form an ordered frontage with a strong sense of overlooking with changing building types contributing to a varied scene.



Contemporary Urban Extensions

New planned communities, known as urban extensions, tend to feature a hybrid of house types ranging from apartments to detached homes. These tend to follow a hierarchy of streets and spaces, with apartments providing strong frontages on key routes and side streets and mews comprising of detached houses and flats over garages.

In contrast to other 20th century housing developments streets and routes tend to be direct and coherent, leading clearly from one point of interest to the next.

These developments tend to have a balanced provision for parking and cars as well as pedestrians and cyclists.



50-60dph



Character Study Area Type



Charlton Boulevard, Patchway

21st Century Urban Extension

Found in:

Patchway & Emersons Green

Period 2000s - 2020s

Height 2-5 Floors

Building Type Apartments, Terraces &

Detached

On-street, Garages & Parking Type

Courtyards

Parking Amount 1-2 per Home

Rear Garden Modest d10m

Front Garden Shallow d1m

Building Line Rigid Aligned

Street Width 12m-22m

Street Setback 1-6m

Block Width 70m-90m

Block Depth

Materials Mix Render or Stock Brick

Amenity Space

Rear gardens can be relatively small or an awkward shape, with part of them used for parking. Apartments tend not to have balconies or communal gardens.



House Types

There is a mix of apartments and terraced homes concentrated around key streets and spaces with surrounding semi and detached houses. This offers a spread of different size homes.



Parking

Most parking is provided within the block interior arranged as courtyards and garages. Some is also found on-street or in front, to the side or integrated into houses.



Thresholds

Each home has a small front garden, some are hardscape, some parking, whereas others are soft landscaped. The most austere are gravel and at times with a simple railing.



Public Space

There are pockets of green spaces that are relatively plain and tend to be surrounded by streets



Elevations

Two materials tend to have been used and bays loosely ordered. This creates a mixed appearance.



Yate Town Centre

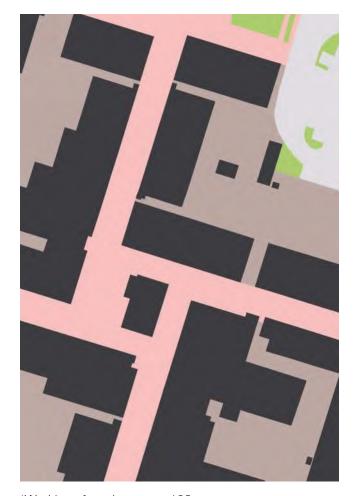
The 1960s shopping complex provides the town with many day to day shops as well as services such as a health centre, library and leisure centre. The central square and four pedestrian walks are the main focus for shoppers but much of its land is taken for surface car parking and service yards.

The shopping centre is dedicated to retail, leisure and services though it does include a low number of homes. It does not include any meaningful green amenity space.

There are small areas of infill in other town centres that echo this approach, creating a pedestrian environment segregated from servicing and homes.



90-130dph* 0.9 FAR



*Workings found on page 102.

Character Study Area Type



Yate Shopping Centre, Yate

Mid 20th Century Parade

Found in: Yate

> 1960s Period

Height 1-4 Floors

Building Type Mall

Parking Type Courtyards

Parking Amount N/A

> Rear Garden N/A

Front Garden N/A

Building Line Rigid Aligned

Street Width N/A

Street Setback 10m

Block Width 140m

Block Depth 140m

> Stock Brick, Render & Materials

> > Concrete

Servicing

Shops all benefit from a large combined service yard to the rear. These provide flexibility for deliveries and waste. The yards are large impenetrable spaces to the public.



Homes

Whilst primarily shops and leisure there are small clusters of homes above shops. These are generally accessed via the service vard via roof terrace.



Parking

Parking is provided within a series of large surface car parks. These invite shoppers and visitors to arrive by car and not by other travel modes.



Frontages

A variety of unit sizes creates an array of frontages and a varied retail offer. Covered pedestrianised walks provide a comfortable environment.



Public Space

There is a large central square that is attractive for leisure. The greens on the fringes lack enjoyment value due to poor overlooking and adjacency to busy roads.



Connections

Encircled by busy roads and large junctions putting the car first. Arriving by foot or cycling is off-putting and problematic with a limited crossing points, access, sense of safety and a poor arrival experience.



Chipping Sodbury Town Centre

The High Street is the centre of the historic market town. The defining feature is its width, up to 35m wide, enclosed by an undulating building line. A mix of building styles, including around 150 historic and listed buildings and structures, with differing architectural techniques provides an interesting backdrop to the range of shops, homes and services.

Buildings are generally arranged fronting the High Street with long narrow burgage plots extending to the rear, these provide a mix of gardens, parking spaces or courtyards for a mix of activities and uses.

The continuous rows of buildings flanking the street do not break often to provide connections north and south separating the street from the surrounding homes.



50-70dph*

0.8 **FAR**









High Street, Chipping Sodbury

Historic

Found in:

Chipping Sodbury

Period 1600s-1880s

Height 2-3 Floors

Building Type Row

Parking Type On-street & Courtyards

Parking Amount N/A

Rear Garden Long & Narrow d80m-110m

Front Garden N/A

Building Line Fluid Continuous

Street Width 20m-35m

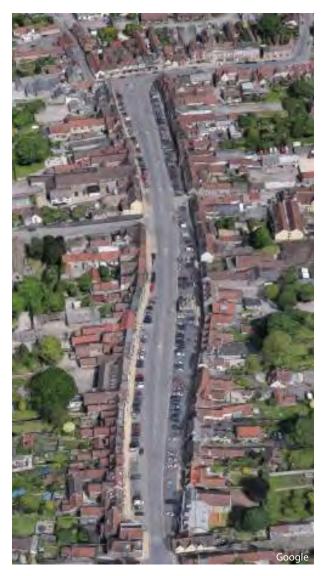
Street Setback Om

Block Width 110m-220m

Block Depth 80-110m

Materials Limestone, Rubble Stone &

Render



Public Spaces

The Frome Valley walkway runs parallel to Broad Street, providing a green reprieve. The Street itself, yards and clock tower, offer a variety of space to gather and enjoy.

Homes

Interspersed between shops and other uses, which themselves can also have apartments above. Houses benefit from long narrow gardens.

Parking & Servicing

Parking is provided on both sides of the street. All servicing can take place on street. Rear yards often have constrained access, though can provide access to further buildings, service space or private parking.

Yards

Rear yards often provide access to additional shops, workspaces or homes. Some destination yards are feature markets or craft businesses.

Frontages

Most buildings are not purpose built shops and have been adapted over centuries to their current uses. Frontages tend to retain a domestic appearance with fairly modest shop frontages.

Connectivity

The long rows of buildings on Broad Street are infrequently punctuated by side streets. There is a limited choice of routes to and from the centre but they are generally comfortable and walkable.

Thornbury Town Centre

The High Street and Castle Street lead to the St Mary's Church and Thornbury Castle. The High Street is punctuated by St Mary's Shopping Centre, creating a link between the main public car park and the High Street, focusing activity here. Moving away from the shopping centre the streets are much more residential in nature and there is not a pronounced intermingling of different uses and activities.



25-50dph* 1.2 **FAR**







Character Study Area Type

*Workings found on page 101.

The Plain, Thornbury

Historic

Found in: Thornbury

Period 1600s-1880s

Height 2-3 Floors

Building Type Row

Parking Type On-street & Courtyards

Parking Amount N/A

Rear Garden Narrow d20m-30m

Front Garden N/A

Building Line Fluid Continuous

Street Width 10m-18m

Street Setback 0m-1m

Block Width 70m-150m

Block Depth 40-60m

Materials Stone, Brick & Render

Modern Infill

The High Street is punctuated by St Mary's Shopping Centre, a mid-late century addition to the town connecting the centre to a large public car park. These parades of shops are the town's retail core.



Servicing & Yards

St Mary's Shopping centre is serviced from the rear whereas other shops are generally serviced from the street. There are a small number of yards, with private parking, that take the place of rear gardens.



As retail is concentrated most of the historic centre retains a domestic feel, with a high number of homes with some adapted as shops and offices.



Parking

Parking is concentrated in Rock Street car park, an easy to locate and large surface car park. Parking on-street tends to be on a single side, not dominating the street.



Larger homes can be found on the High Street, Castle Street. Smaller homes, with front gardens, can be found on the side streets.



Public Space

To the west the High Street is linked to a network of public rights of way traversing the wider countryside. There is also a green next to the Church and playing fields nearby.

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Suburban Houses

Contemporary Houses	30-40dph
Late 20th Century Houses	25-35dph
Mid 20 th Century Houses	25-35dph
Interwar Homes	10-25dph
Postwar & Prefab Housing	20-30dph

City growth in the 20th century is largely defined by expansive suburbs. These typologies often account for the largest portion found within named areas.

Floor area ratios for the types of low density / low intensity housing range between 0.2-0.4 FAR.

Floor area ratio tends to be higher on more recent development. Whilst building forms have not generally changed (i.e. a detached or semi detached house set over two floors) there has been a notable reduction in the size of plots (for example the gardens), more so than a reduction in the size of homes and floor areas. Smaller plots, not larger buildings, is the primary reason for a higher floor area ratio.

House Types

Generally speaking, prior to the late 20th century these comprise of semi detached homes set over two floors with relatively large gardens. There is also a prevalence of short terraces (say 5 homes).

Postwar Prefab homes were innovative at the time, featuring prefabricated panels, such as the Cornish Type comprising of concrete panels and a timber frame roof.

Late 20th century houses saw the size of homes shrink and a greater prevalence of detached homes.

Street Layout

During the 20th century homes began deviating from conventions on establishing a building line and set back from the street, with late 20th century examples in particular being staggered presenting an incoherent and illegible street scene.

Streets until the late 20th century tended to be arranged on long or sweeping streets. Towards the late 20th century street layout became less coherent and designed more for the car. New layouts tended towards

sinuous and cul-de-sac streets which often increase walking and cycling distances.

Parking

Parking tends to have been inserted on-plot, to the side or in front of the house and therefore there is limited on street parking in the area. Homes with smaller front gardens, particularly from the Mid 20th Century are increasingly hardscape for parking removing green from many street scenes.

Public Open Space

Public and green spaces were generally segregated from homes. The Radburn approach established an aspiration for a green network and open spaces intertwined with housing in developments. Whilst not as prolific with open space, Late 20th Century areas often feature pockets and ribbons of green space, though not a full network and at times only located at the back of homes and poorly overlooked. Contemporary development tends to integrate green spaces into a wider network, creating opportunities for play, biodiversity and active travel.







1 Lupin Close, Emersons Green

3

- 2 Chestnut Road, Staple Hill
- 3 Meadow Way, Bradley Stoke
- 4 Almond Way, Staple Hill
- 5 Rannoch Road, Filton

5. Character & Area Typologies Summary

Each of the areas studied share some similarities, differ or are outliers. Aspects, such as choice of public transport and accessibility within each area inform what will be an appropriate density for future development. These reflect the findings from the Character Studies and Area Typologies, as well as the South Gloucestershire Data and Access Profiles (DAPs) 2020. The qualities of each named area are summarised in a table at the end of this section. The key qualities summarised are:

- Density
- Connectivity
- Amenities

Density

Density Range

This is the minimum and maximum density found within the study area. This range excludes those areas that make up less than 4.5% of the study area, thereby excluding small instances of potentially very low or much higher density.

Most Prevalent Area Type

This is the most common area type found within the study area.

Prevalent Density

This is the density of the most prevalent area type.

Centre Area Type

The area type that identifies the character of the town, neighbourhood or local centre.

Connectivity

Accessibility is an important quality when considering density. Better connectivity makes it easier to access other places and destinations for work and leisure, as well as making more sustainable travel choices.

Connectivity is an important quality in considering higher density development. Connectivity is an important quality when choosing where to live and can underpin popular developments and locations.

A higher density development requires travel and connection options and sustainable travel choices.

Railway Connections

Presence of a railway station within the study area.

Rapid Transit (Metrobus)

Within the catchment of a Metrobus route, which traverses the study area.

Good Bus Provision & Travel Times

These are the areas that have a good provision of bus routes, travel times and destinations as identified in the DAPs. Each area has a variety of different bus routes and destinations.

Travel time weightings emphasise connectivity to Bristol and Bath city centres and, secondarily, the travel time to other destinations. This is explained further in "Appendix IV" on page 107.

Strategic Cycle Route Connections

Bisected by established strategic and major routes

Amenities

Proximity to amenities is important for liveable and walkable neighbourhoods. Convenience shopping, going to play areas and walking to school are all important activities in day to day life for many households. The choice of activities and amenities within a different area appeals to different types of households and therefore may be appropriate for a higher density of homes.

Variety & Access to Open Space

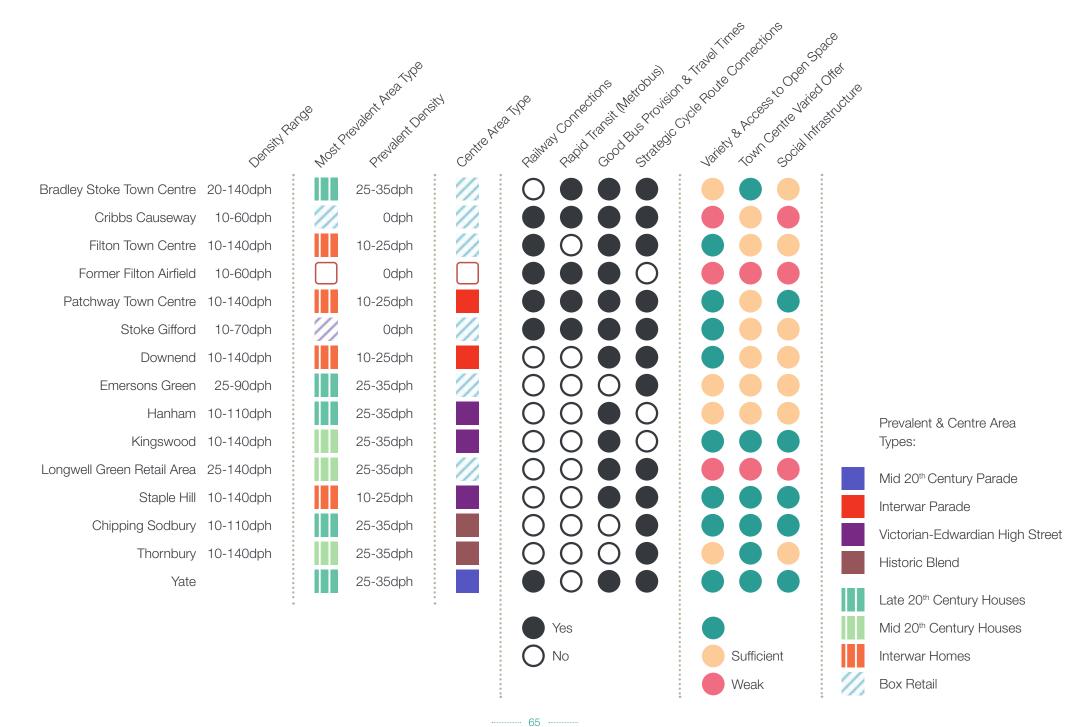
Accessible spaces for different ages and activities. This could include a range from (semi) natural spaces, parks, sports fields and equipped play areas.

Large Town Centre

Wide provision of local shops reflecting the size of the town centre.

Social Infrastructure

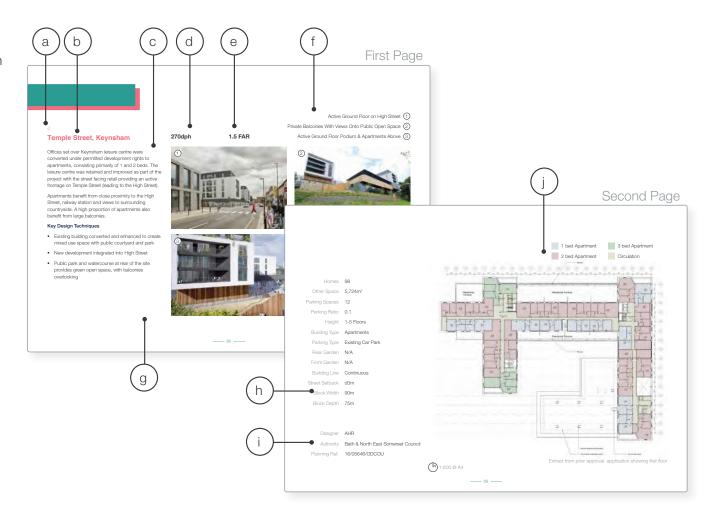
Range of services focusing on education and health, notably primary and secondary schools; and health centres within the study area.



6. Case Studies

These demonstrate how a gentle density can be achieved with high quality design, be appropriate within a relatively low density context and include a varied housing offer. Commentary here reflects specifically on design and the quality of private amenity space, public spaces and frontages and approach to parking.

- (a) Case Study Reference
- (b) Case Study Name
- c General Description
- d Density
- (e) Floor Area Ratio
- f Legend for Photos
- g Key Design Techniques
- (h) Key Facts
- (i) References
- j Informative Plan / Extract



This table provides the page references for the case studies and their density.

Strip	Casa Stripy Location		Oblight What bodge		
Class	Location	Densith	4iiteo	<2000	Peleterce
	Chichester	50dph	0	66	А
Brooks Dye Works	Bristol	70dph	0	68	В
Kendall Road	Staple Hill	90dph	0	70	С
Greyfriars	Gloucester	100dph		72	D
Knights Park	Cambridge	100dph	0	75	Е
Gainsborough Square	Bristol	110dph		78	F
Southmead	Bristol	115dph		80	G
Western Riverside	Bath	160dph	0	83	Н
Burridge Gardens	Clapham	235dph	0	85	1
Temple Street	Keynsham	270dph		87	J
		•	_	·	

Ye No

Pedestrian Priority Streets

Mews-Style Lanes (2)

Green Streets With On-Street Parking (3)

Mix of House Types (4)

A

Rousillon Park, Chichester

This attractive series of terraced homes and new public spaces provide a rich environment to live. Surrounded by low density suburban homes the scheme is of a more appropriate density that responds to the proximity of the city centre.

A considered street hierarchy reduces the impact of parking and cars on key routes and public spaces, prioritising walking and cycling. Mews lanes provide interesting and secure spaces for parking and are well overlooked by mews houses.

Key Design Techniques

- Traditional street layout that responds to the historic street patterns within Chichester. A narrow, gridded street pattern links a series of green public spaces
- Contemporary re-imagining of the terraced house, with enclosed front gardens
- Parking in courtyards and garages as well as onstreet

50dph









Homes 252

Other Space N/A

Parking Spaces 378

Parking Ratio 1.5

Height 2-3 Floors

Building Type Townhouses, Apartments & Mews

Courtyard & On Street

Rear Garden d10m

Front Garden d1m

Building Line Continuous

Street Setback 1m

Block Width 60m

Block Depth

Designer Ben Pentreath

Chichester District Council

Planning Ref. 10/03490/FUL



Extract from planning application showing a mix of terraces

Attractive and Overlooked Streets (1)

Colourful Building Frontages (2)

Apartments With Juliet Balconies (3)

Public Open Space Incorporating Original Features (4)

B

Brooks Dye Works, Bristol

A re-imagining of terraced homes on a former industrial site. The compact terraced forms effectively use the land on an irregular site. The mix of homes and apartments reflect the surrounding terraced and Victorian neighbourhood.

Many homes benefit from concealed and secure parking with private gardens above.

A large central public space provides a significant new green space within the neighbourhood and an expansive space for new residents.

Streets are carefully considered with frequent front doors, prioritising walking and cycling as well as front gardens with discreet waste and servicing stores for a positive street scene.

Key Design Techniques

- Public open space at heart of site. Integration with Mina Park provides access to additional green space and play area.
- All houses are either provided with traditional gardens at ground level or courtyard gardens at first floor level. Apartments have Juliet balconies overlooking the new public space.

70dph









Other Space 630m²

Parking Spaces 128

Parking Ratio 1.2

Height 2-3 Floors

Building Type Apartments & Mews Houses

Undercroft & On-street

Rear Garden d5-10m

Front Garden d0.6m

Building Line Continuous

Street Setback d0.6m

Block Width 100m

Block Depth 30m

Designer Ferguson Mann Architects

Bristol City Council

Planning Ref. 15/06475/P; 17/07013/X;

17/06049/M



- Balconies overlooking Street (1)
- Responds to Existing Building Line (2)
- Discreet Bin & Cycle Stores by Front Doors (3)
 - Overlooking Parking Court (4)

C Kendall Road, Staple Hill

The site of a former Royal British Legion hall, this narrow and compact site is located just behind the high street in Staple Hill. This provides an appropriate density for what is a central location. The scheme provides a mix of houses and apartments with parking arranged within a concealed courtyard. This provides a strong street frontage with a series of front doors and balconies overhead providing private amenity space. To the rear the courtyard is equally overlooked and fronted by two private homes.

Key Design Techniques

- Access to central courtyard parking area through apartment block makes efficient use of space.
- Separation of two buildings creates openness and significantly reduces the oppressive sense of enclosure previously experienced by adjoining properties.
- Large balconies provide private amenity space for residents.

90dph









Other Space N/A

Parking Spaces 11

Parking Ratio 1.4

Height 2.5 Floors

Building Type Apartments & Townhouses

Courtyard

Rear Garden

Front Garden d0.6-1.6m

Building Line Continuous Broken

Street Setback d0.6-1.6m

Block Width N/A

Block Depth N/A

Designer 36 Design

South Gloucestershire Council

Planning Ref. P19/7680/F; P20/08770/F





Extract from planning application site plan showing ground floor

- Green Streets (1)
- Attractive Recessed Balconies (2)
- Secure Undercroft Parking with Gardens Above (3)
 - Settings for New and Old Buildings (4)

D Greyfriars, Gloucester

A distinctive range of terraced housing, with undercroft parking to the rear and decked garden space accessed from the first floor.

A mix of apartments echoing villa and warehouse configuration. These are arranged 3-5 apartments per floor and maximise daylight through large windows, Each apartment building is adjacent to a newly created public open space.

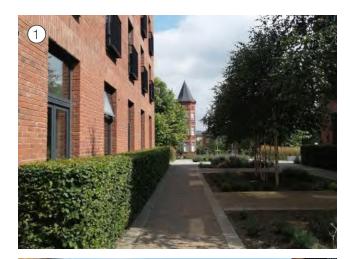
The design responds to the adjacent ruins of Greyfriars Priory (Grade I listed) and substantial potential for archaeology, including Roman city walls, by creating a new sequence of spaces providing a new setting.

Some streets exclude cars creating more opportunities for green and door step play. There is only a simple treatment on corners responding to street hierarchy.

Key Design Techniques

- Undercroft parking beneath private gardens.
- Majority dual aspect apartments, some with balconies.
- A variety of public spaces are created, which provide amenity for residents.

100dph









Other Space 2,542m²

Parking Spaces 207

Parking Ratio 0.8

Height 2-4 Floors

Building Type Apartments & Town Houses

On-street, Courtyards & Undercroft

Rear Garden Narrow d8m

Front Garden d0m-1m

Building Line Continuous

Street Setback 0-1m

Block Width 20m-50m

Block Depth 30m-60m

Designer New Masterplanning & FCB Studio

Gloucester City Council

Planning Ref. 11/00107/FUL





Extract from planning application landscape masterplan showing ground floor

Townhouses

1) Recessed Front Doors

These help address lack of front gardens by continuing to provide that transition between public and private space.

- 2 Decked Parking Access
- (3) Cycle & Waste Stores
- (4) Visitor Parking On-Street

A decked parking area efficiently provides spaces, cycle and waste stores (taking them off the street).

(5) Green Street

An efficient parking layout allows the creation of green streets, contributing to liveability, sustainable urban drainage and biodiversity net gain.

(6) Decked Garden

Parking is decked over providing private rear gardens.

Villa Apartment Buildings

7) Dual Aspect Apartments

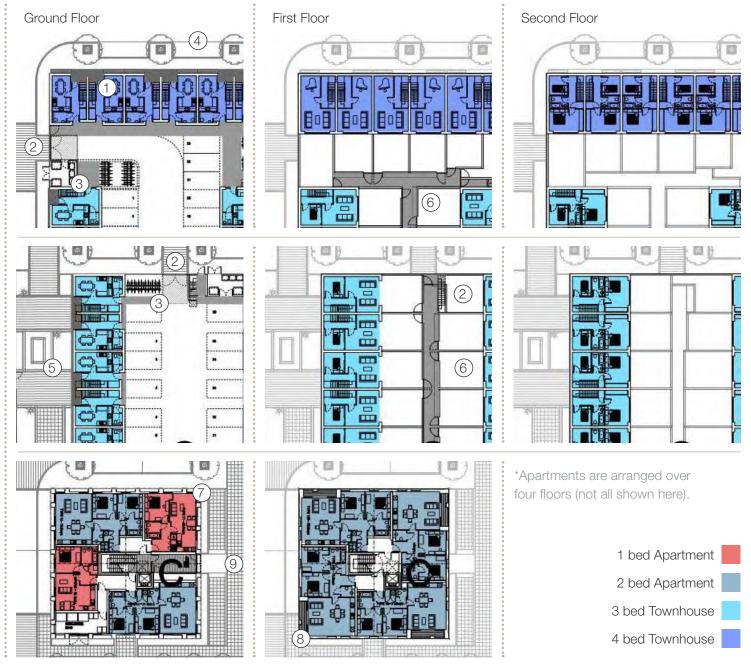
Compact floor plates enable many apartments to benefit from corner locations.

(8) Recessed Balconies

Provide amenity space, maintain thermal efficiency and flush elevations.

(9) Green Public Space

Buildings help enclose and benefit from fronting onto green public spaces.



Extract from planning application composite floor plans showing typical arrangement of building types, parking and public space

Е

Knights Park, Cambridge

There are several recent developments in and around Cambridge where conventional house types have been innovated to provide more compact and higher density forms whilst maintaining a high quality of living. These innovations often favour the density, quality of the public realm, adaptability and variety of the housing offer. Other notable schemes include Accordia and Abode in Great Kneighton.

Key Design Techniques

- Compact and stacked homes, mix of different house types, each benefiting different households
- Double stacked creating flexibility for different levels of car ownership; i.e. if household only has one car they gain more courtyard amenity space
- Provision of private amenity space prioritised where the solar gain is greatest, at times splitting between different levels that could support different activities at different times of the day, such as ground, first floor and / or roof including laundry, plants and safe play.

100dph





Pavilion Apartment Buildings (2)

Compact Form with Landscaped Streets (3)





Other Space N/A

Parking Spaces 247

Parking Ratio 1.3

Height 3-5

Building Type Apartments, Townhouses & Mews

Carports

Rear Garden d6m

Front Garden d0.5m

Building Line Continuous

Street Setback 0.5m

Block Width 80m

Block Depth 30m

Designer

South Cambridgeshire District Council

Planning Ref. S/2219/15/RM





PTE Primary Street House with Mews House



PTE Neighbourhood Park Terrace House



Extract from winning Housing Design Awards 2021 entry showing variety of house types, floor plans including parking and amenity space provision

Strong Frontage Overlooking Green Square (1)

Mews Houses (2)

Compact Form (3)

F

Gainsborough Square, Bristol

A larger apartment building with retail on the ground floor provides an attractive and strong frontage overlooking a green.

New homes are provided in a mews with a mix of courtyard houses on the other side – all positioned to maximize the use of natural daylight. Courtyard houses are configured with a garden to the side with an additional roof terrace accessed from the first floor.

Front gardens and thresholds are created by projecting the front door, aligning it perpendicular to the street. This responds to the compact nature of the mews whilst creating a safe and comfortable access to the homes.

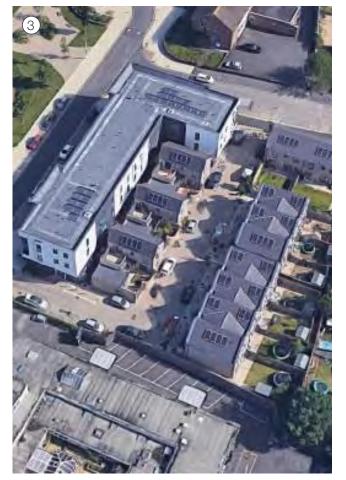
Key Design Techniques

- Pedestrian priority mews lane with integrated landscaping
- Recessed balconies overlooking public green with splashes of material colour for visual interest
- Use of courtyard gardens providing private amenity spaces for compact detached houses

110dph







4 bed House 2 bed House 3 bed House Ground Floor Retail

Homes 28

Other Space 486m²

Parking Spaces 16

Parking Ratio 0.6

Height 2-3 Floors

Building Type Apartments & Mews Houses

Mews

Rear Garden d8-10m

Front Garden d0.5m-1.5m

Building Line

Street Setback 0-1m

Block Width 24m

Block Depth 48m

Designer Kendall King Scott

Bristol City Council

Planning Ref. 12/00895/F



Public Realm, Strong Frontage & Celebrated Entrances (1)

Visible Stairs & Large Entrances (2)

Balconies & Overlooking of Green (3)

Deck Access to Maintain Dual Aspect (4)

Southmead, Bristol

Located in an interwar and postwar neighbourhood on the edge of Bristol, this project aims to ensure vitality of, and extend, the town centre offer and benefits the wider community. In an area of large semi detached houses the offer of smaller homes adds to the choice in the neighbourhood.

A new health centre and renewed play area will add to the town centre's vitality. In this case the proposal is for development on existing under-used public open space and focuses on improvements to the public realm, enhanced natural surveillance and greater activation of streets and open spaces.

Key Design Techniques

G

- Deck access apartments, retaining dual aspect
- Visible cores adding to overlooking
- Balconies and terraces
- On street parking
- Communal gardens
- New relocated play area

115dph









Other Space 1,650m²

Parking Spaces 141

Parking Ratio 0.9

Height 3-4 Floors

Building Type Apartments

On Street & Courtyards

Rear Garden

Front Garden d1m

Building Line Continuous

Street Setback 1m

Block Width 85m

Block Depth 60m

Designer Nash Partnership

Bristol City Council

Planning Ref. 19/04705/F







- Communal Gardens with Play Equipment (1)
- Streets of both Terraced Houses and Apartments (2)
 - New Public Spaces (3)
 - Compact Form (4)

н

Western Riverside, Bath

A major redevelopment area near the city centre this mix of terraced houses and apartments provides higher density living set among a mix of communal gardens, public greens and pedestrian priority streets.

Communal gardens include play equipment and whilst located internally to each block are accessible to surrounding homes too.

A mix of undercroft and on-street parking retains some on-street activity and coming and going of residents.

The upper floor of apartment buildings steps back furnishing apartments there with large recessed terraces.

Key Design Techniques

- Mix of apartments with undercroft parking and large communal courtyard
- Set back upper floors with roof terraces. Creates height whilst having a lower visual impact
- Blended with terraced homes
- On-street parking and undercroft parking

160dph









Other Space 147m²

Parking Spaces 250

Parking Ratio 0.7

Height 3-7

Building Type Apartments, Terraces & Pavilions

On-street & Undercroft

Rear Garden d8m

Front Garden d0.5-1.5m

Building Line Continuous

Street Setback 0.5-1.5m

Block Width

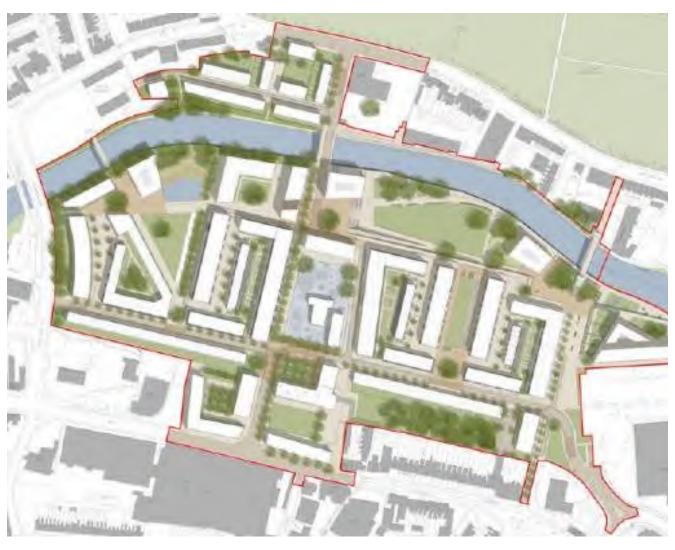
Block Depth 80m

Designer FCB Studio & Holder Mathias

Bath & North East Somerset Council

Planning Ref. 06/01733/EOUT

^{*}Measures based on Phase 1 only / not entire masterplan.





Extract from outline planning application illustrative masterplan showing pattern of blocks and public spaces (finished phases vary from drawn)

Ordered elevation with large aligned balconies

Pedestrian street with frequent front doors (2)

Communal gardens surrounded by ground floor apartment's private terraces (3)

Appearance and frontages are sensitive to existing homes (4)

Burridge Gardens, Clapham

Adjacent to a compact network of Victorian terraces this project doubles that density in a responsive and appropriate way. Apartments are of a various types such as ground floor duplexes with their own front doors and gardens with a mix of apartments above benefiting from large balconies.

Blocks are arranged around communal gardens, including play equipment and a central public space that helps to anchor this corner of the neighbourhood. Streets are designed for people.

Key Design Techniques

- Sensitive transition from old Victorian streets to new high density development, including a step up in height, elevation, order and composition and materials.
- Large and adaptable balconies.
- Ground floor private gardens exiting into communal garden



235dph







Other Space 1,099m²

Parking Spaces 136

Parking Ratio 0.3

Height

Building Type Apartments

Undercroft

Rear Garden d3m

Front Garden d1m

Building Line Continuous

Street Setback 1m

Block Width 60m

Block Depth 50m

Designer Hawkins Brown

Wandsworth Borough Council

Planning Ref. 2012/1258



J Temple Street, Keynsham

Offices set over Keynsham leisure centre were converted under permitted development rights to residential use, consisting primarily of 1 and 2 bedroom apartments. The leisure centre was retained and improved as part of the project with the street facing retail providing an active frontage on Temple Street (leading to the High Street).

Apartments benefit from close proximity to the High Street, railway station and views to surrounding countryside. A high proportion of apartments also benefit from large balconies.

Key Design Techniques

- Existing building converted and enhanced to create mixed use space with public courtyard and park
- New development integrated into High Street
- Public park and watercourse at rear of the site provides green open space, with balconies overlooking

Private Balconies With Views Onto Public Open Space (2)



1.5 **FAR**

270dph



Active Ground Floor on High Street (1)





Other Space 5,724m²

Parking Spaces 12

Parking Ratio 0.1

Height 1-5 Floors

Building Type Apartments

Existing Car Park

Rear Garden N/A

Front Garden N/A

Building Line Continuous

Street Setback d3m

Block Width 90m

Block Depth 75m

Designer AHR

Bath & North East Somerset Council

Planning Ref. 16/05646/ODCOU







Lessons Learned

These case studies reflect a range of densities that represent an uplift on the prevailing densities found within the character studies. The lower density examples may be most appropriate to learn from when considering a proposal in a peripheral location or where a higher density is not appropriate. The higher density examples may be appropriate in a central location or where higher density is most appropriate, such as within the most accessible locations.

Each case study demonstrates elements of high quality design and liveability. This achievement is not compromised by being of a higher density than their surroundings. These higher density schemes often benefit the context greatly, such as by providing a mix of uses, overlooking and activity on the street, choice for different types of households and lifestyles and providing new open spaces or amenities to the wider community.

Key aspects that should be learned from and future developments should address clearly are:

Private Amenity Space

This can be delivered in a variety of ways, such as rear gardens, communal gardens, (projecting or recessed) balconies and terraces.

In high density solutions gardens can be provided on podiums, decked areas or above garages. Front gardens, even small ones add greatly to the sense of place and a positive streetscene. Private gardens can also be provided in combination with communal gardens, providing a small private area that can used for seating or personal planting for ground floor homes.

Public Space and Frontages

A network of spaces and an understanding of street hierarchy is important to providing rich design responses. Frontages are particularly important in activating streets and making them feel safe. Homes should conventionally face the street whereas apartments can have multiple main doors leading to upper floors aiding a strong frontage. Ground floor apartments can have their own front doors, and front gardens, with direct access from the street forming a strong and active frontage.

On larger schemes new public spaces help to deliver doorstep play (important for toddlers) and equipped play available to the wider community. Adding to the tapestry of public spaces in the neighbourhood and the choice of activities within walking distance, ranging from places for informal group play to solitary reading of a book. This is particularly important in high density schemes where private amenity space is constrained.

Parking Approach

Parking is a challenge in high density proposals.

Provision need not be very high in highly accessible locations or where their is a choice for more sustainable modes of transport. A mixed approach tends to contribute better to an overall design. This could include undercroft parking, courtyards, mews and flats over garages as well as on-street parking.

The parking ratio for these case studies do not necessarily meet local standards, but because they are of high quality design, with good public realm and a choice of sustainable modes of transport they are successful and liveable places (more so than they would be if they were dominated by cars and parking).

Housing Mix

It is important that housing is not of a single type. In particular, family housing should not be excluded from higher density development as these households can also benefit from highly accessible, well located and walkable development. Equally it can be beneficial in suburban locations where the dominant house type is a detached house to have a different offer such as a one or two bedroom apartment enabling a diverse community and options for existing residents to

downsize or move out of the family home (such as children who are young adults).

Terraces are an important technique for increasing density and often with contemporary approaches, particularly in respect to noise, insulation and neighbourliness, the quality of living can be much better than historic examples. The configuration of the home can also be innovated to produce compact homes within a higher density scheme that can benefit from private gardens and amenity space (without having to provide only apartments).

Apartments too can be varied, not just by number of bedrooms, but the adaptability of the interior such as incidental space for a new baby or a space to work from home. Apartments too can be arranged over two floors (a duplex) producing a more conventional separation of living and sleeping areas. This is particularly effective at the ground floor, where a larger unit can be provided benefiting from direct access and a rear garden.

7. Conclusion & Recommendations

The study areas are each of a generally low suburban density though each has examples of higher density development such as terraces and apartments and active areas such as high streets and town centres. There are opportunities to increase the density, within proposed development, given the quality of open spaces and proximity of amenities. Each area has the potential to become much more walkable, cyclable, and accessible by public transport and less reliant on cars.

The case studies set out a variety of approaches demonstrating that high quality living can be achieved in a way that is appropriate to the character of the study areas. Development of the type found within the case studies and an uplift in density would make for an effective use of land.

The recommendations for appropriate densities for future proposals within the study area have been worked out using the prevailing density range as a starting point and factoring in the qualities and character of the place, as well as understanding the

key constraints and opportunities, to calculate an appropriate uplift range.

The recommendation has been calculated understanding the following qualities, starting with those highlighted in the areas quality summary.

Density Range

This is the minimum and maximum density found within the study area.

Prevailing Density

This is the prevailing density found within the named area. It's range is the starting point for deciding on the recommended density (i.e. proposed / recommended density must be no lower than the existing prevailing density).

Connectivity

These qualities all improve the sustainable choices to surrounding neighbourhoods and destinations including other employment centres. For instance, places of work in Bristol City Centre.

The qualities that increase the appropriateness of density are:

- Railway connections
- Rapid transit (Metrobus)
- Good bus provision & travel times
- Strategic cycle route connections

All the named areas are highly accessible and appropriate for an uplift in density but some are more so. These connectivity qualities present different modes of transport and a choice that will appeal to a greater number and variety of people and household types.

Together these factors provide sustainable transport choices that could serve people for work, shopping, school and leisure, that may each best be served by either walking, cycling, taking the bus or the train. Buses and trains, for instance, and their travel times benefit an area by offering a variety of routes and destinations (set out within the DAPs).

Amenities

Proximity to a variety of amenities underpins a walkable neighbourhood, provides convenience and enhances opportunities for improved health and wellbeing. These aspects amount to more desirable locations to live and improve a place's ability to support and enrich the lives of households around them. These aspects include:

- Variety of & access to open space
- Variety of town centre offer
- Social infrastructure (e.g. schools and health centres)

Opportunity

The opportunity within each study area is different. Whilst some areas are more ubiquitous, other study areas have characteristics that require a more tailored response. The key opportunities are:

- A historic town centre
- An area requiring transformational change
- Town centres needing additional support to maintain their vitality

Historic Town Centre

Historic centres often have a good spread of amenities and offer opportunities for high quality living. These areas require a sensitive response to protect and enhance their historic character and designated heritage assets.

A density uplift (compared to existing) is justified but a significant jump may be problematic in terms of delivering a sensitive and appropriate design response.

Effectively this quality creates a cap on the recommended density range, to ensure future proposals can effectively balance the requirements of high quality design, responding to context and achieving an appropriate uplift in density.

These are recorded on the matrix as having 'Conservation Area(s)'.

Transformational Change

Those areas with an opportunity for transformational change are those areas that are currently not predominantly residential in character (such as mostly being 'out of town' box retail) and may lack good open spaces and amenities that you may otherwise expect in a walkable neighbourhood.

To transform these areas into successful mixed use neighbourhoods and better provide open spaces and amenities, a critical mass of homes will be required to change the identity of the area and drive development value to deliver benefits to the (new) neighbourhood (such as new parks or schools).

This opportunity raises the recommended density range to capture the transformational opportunity and ensure the identity of an area can transform into a successful mixed use neighbourhood.

These are recorded on the matrix as 'Transformation Aspiration'.

Support Vitality

All centres will benefit economically from new development and an increase in their catchment population. There are some centres that show signs of significant or prolonged change arising from changing population trends and attitudes to work and shopping.

To retain the vitality of these centres, their varied offer and provision of services, additional density may be appropriate the ensure this vitality is maintained against this backdrop.

These are recorded on the matrix as 'Support Vitality'.

Recommendations

The matrix on the following page reflects these key qualities that underpin the stated recommended density.

This recommendation comprises:

- Minimum Density
- Higher Density

Minimum Density

The minimum is an absolute expectation. This minimum may be only be appropriate on the periphery of the study areas, where proximity to railway stations, open space, amenities or other nodes is less. Schemes should only be lower than this density where there are salient considerations or significant constraints. These considerations could include:

- Impact on listed buildings, conservation areas, archaeological assets.
- Avoiding unreasonable harm to the amenity of neighbours and the community (in absence of countervailing benefit or mitigation)
- Challenges in accommodating sufficient car parking provision, taking into account the absence of access to alternative transport modes and a lack

- of measures in place to control on-street parking stress (such as residential parking zones).
- Accommodating safe access/ egress to/ from the site.
- Possible harm to ecological assets.

Higher Density

Higher densities, delivering an increased number of high quality homes is the ambition. The higher density can be thought of as a 'yardstick' for proposals to be measured against, where located towards the centre of study areas or close to amenities such as town and local centres, transport nodes (such as railway stations) or open spaces. The aim should be to exceed this where appropriate. A lower or minimum density is only appropriate where particular considerations for placemaking and design quality indicate that such an approach is necessary.

It could be possible and appropriate to exceed the higher density given the right opportunity and in full

consideration of the surrounding context and character of the site.

There are particular exceptions from this higher density. These arise from opportunities within each study area, where it may be appropriate for density to be much greater, such as pockets of box retail, light industrial and/ or employment areas, or particular development forms such as Yate Shopping Centre. which should be viewed as 'localised' and 'specific' opportunities for transformational change. These offer the potential to provide a broader mix of uses and to optimise the use of land through much higher density development than suggested for the named area overall.

For instance, Yate has a higher density of 120dph. Yate Shopping Centre, a localised area within the study, is a 'transformational' opportunity, with the 160dph higher

density being used as a starting point. This is identified on the "Recommendations Matrix" on page 97 with an asterisks (*).

Future Proposals

The case studies reflect a range of densities that could be appropriate for proposals within the study areas. These could be read alongside the density recommendations. For instance, if 90dph is appropriate to a particular area, case studies around this level may be comparable for future proposals in the given named area.

Individual features or elements from any of the case studies can be used to improve the quality of new developments. This should include learning from the provision of balconies, creating strong frontages, a pragmatic approach to parking and a mix of house types, drawing on "Lessons Learned" on page 91, where good examples are found in different case studies (irrespective of density).

The case studies can be learned from, and design techniques and approaches can be used to implement high quality urban lifestyles and better walkable neighbourhoods in South Gloucestershire. The "Case Studies Applied" on page 98 shows the minimum and higher density recommendation, alongside the case studies that could be appropriate to each of the Urban Lifestyle areas.

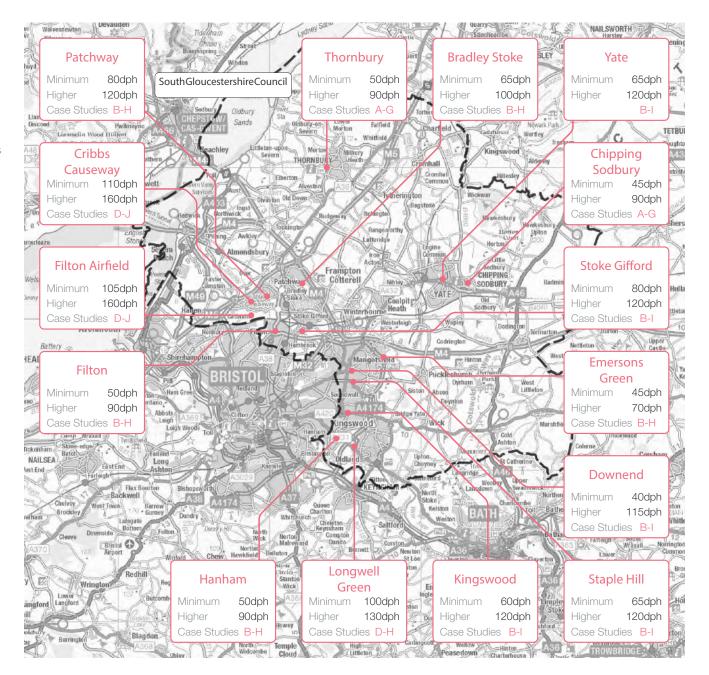
Recommendations Matrix	Most Prevalent Area type	Raimay Connection Good Bus Provision	To Trave lines of recitors to Open St. Over Solid Info	astructure did prealed production as a support	Region Lersiel Higher Densiel
Bradley Stoke Town Centre 20-140dph	25-35dph //	$\circ \bullet \bullet \bullet$		000	65dph 100dph
Cribbs Causeway 10-60dph	Odph //	$\circ \bullet \bullet \bullet$		$\circ \bullet \circ$	110dph 160dph
Filton Town Centre 10-140dph	10-25dph			000	50dph 90dph
Former Filton Airfield 10-60dph	Odph			\bigcirc \bigcirc \bigcirc	105dph 160dph
Patchway Town Centre 10-140dph	10-25dph			\bigcirc	80dph 120dph
Stoke Gifford 10-70dph	Odph			000	80dph 120dph
Downend 10-140dph	10-25dph	000		000	40dph 115dph
Emersons Green 25-90dph	25-35dph	000		000	45dph 70dph
Hanham 10-110dph	25-35dph	0000		$\circ \circ \bullet$	50dph 90dph
Kingswood 10-140dph	25-35dph	0000		$\circ \circ \bullet$	60dph 120dph
Longwell Green Retail Area 25-140dph	25-35dph	$\circ \circ \bullet \bullet$		$\circ \bullet \circ$	100dph 130dph
Staple Hill 10-140dph	10-25dph	$\circ \circ \bullet \bullet$		$\circ \circ \bullet$	65dph 120dph
Chipping Sodbury 10-110dph	25-35dph	000			45dph 90dph
Thornbury 10-140dph	25-35dph	000			50dph 90dph
Yate 10-140dph	25-35dph			$\circ \circ \bullet$	65dph² 120dph
¹ The lowest and highest recorded d ² Explanation set out on page 106	ensity in the study area	Yes No	Good Sufficient Weak	Yes No	

Case Studies Applied

This plan show the location of each named area, their minimum and higher density as well as the case studies that could be appropriate, in density and character.

These are cross referenced with a letter shown in red table and explored in detail within "6. Case Studies" on page 66.

Clase Strip	.ior	bi:		ielce	
Class	Location	Density	Sep.	S C	
	Chichester	50dph	Α	66	
Brooks Dye Works	Bristol	70dph	В	68	
Kendall Road	Staple Hill	90dph	С	70	
Greyfriars	Gloucester		D	72	
Knights Park	Cambridge	100dph	Е	75	
Gainsborough Square	Bristol	110dph	F	78	
Southmead	Bristol	115dph	G	80	
Western Riverside	Bath	160dph	Н	83	
Burridge Gardens	Clapham	235dph	1	85	
Temple Street	Keynsham	270dph	J	87	



Appendix I

Town Centre Sample Densities

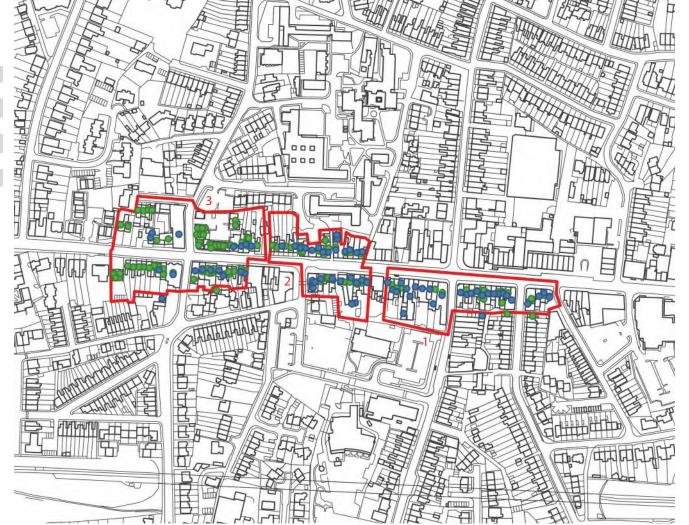
Staple Hill

Sample	1	2	3	no.
Residential Addresse	s 27	36	69	du
Residential Floor Are	3364	2811	6840	m ²
Commercial Addresse	s 29	32	16	no.
Commercial Floor Area	5699	2957	3159	m ²
Sample Are	0.83	0.69	1.39	ha
Residential Ratio	0.37	0.49	0.68	
Densit	y 88	106	73	dph



0

Commercial Address





Chipping Sodbury Town Centre

Sample	1	2	3	no.
Residential Addresses	25	12	29	du
Residential Floor Area	2888	1298	3766	m^2
Commercial Addresses	32	29	7	no.
Commercial Floor Area	4462	6328	1537	m ²
Sample Area	1.26	1.01	0.8	ha
Residential Ratio	0.39	0.17	0.71	
Density	51	70	51	dph



- Residential Address
- Commercial Address





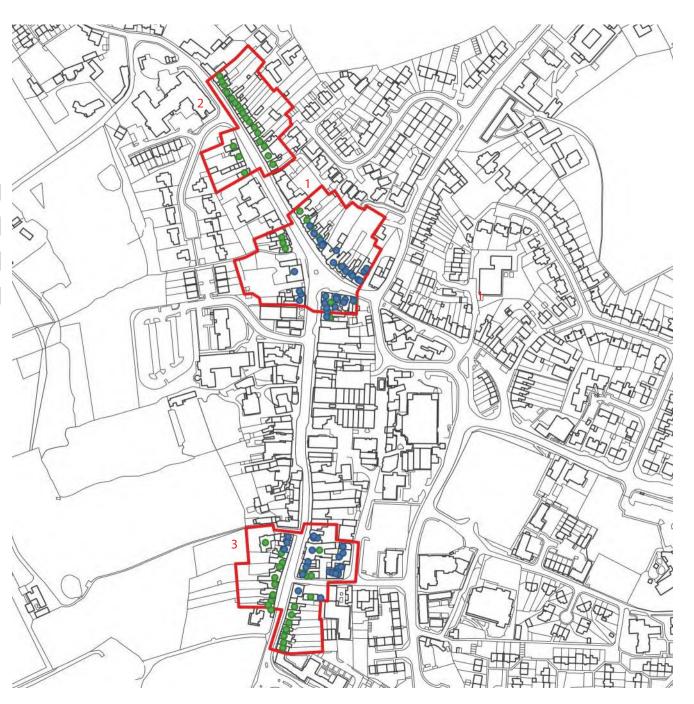
Thornbury Town Centre

Sample	1	2	3	no.
Residential Addresses	16	20	21	du
Residential Floor Area	1810	3882	3877	m ²
Commercial Addresses	33	0	25	no.
Commercial Floor Area	5367	0	3568	m ²
Sample Area	1.34	0.85	1.14	ha
Residential Ratio	0.25	1.00	0.52	
Density	48	24	35	dph



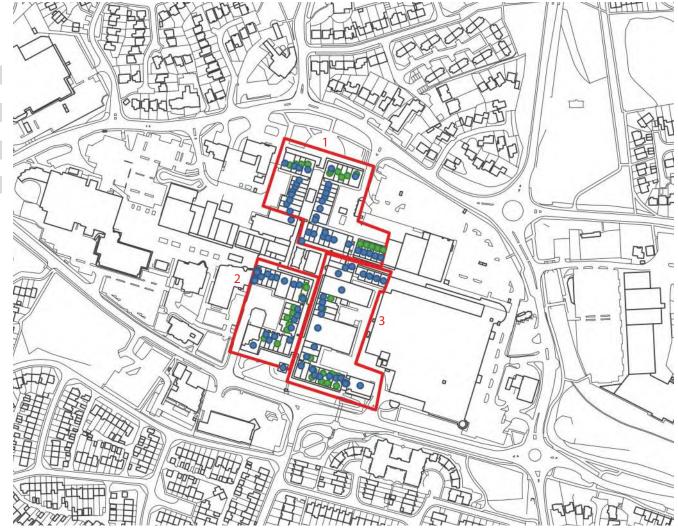
- Residential Address
- Commercial Address





Yate Town Centre

Sample	1	2	3	no.
Residential Addresses	17	11	11	du
Residential Floor Area	1651	1046	868	m ²
Commercial Addresses	35	28	27	no.
Commercial Floor Area	7872	7087	7256	m ²
Sample Area	1.03	0.69	1.06	ha
Residential Ratio	0.17	0.13	0.11	
Density	97	123	94	dph



- Sample Area
- Residential Address
- Commercial Address



Appendix II

Are

hhc	IIGIA II			_	vay						en			۲ و		oury		
геа Тур	De Table Area Type	Density Min	-	Bradley Stoke	Cribbs Causeway	Filton	Filton Airfield	Patchway	Stoke Gifford	Downend	Emersons Green	Hanham	Kingswood	Longwell Green	Staple Hill	Chipping Sodbury	Thornbury	Yate
	Light Industry, Distibution & Warehou	uses 0	0	0%	23%	25%	32%	18%	1%	0%	6%	1%	2%	3%	1%	6%	11%	26%
t pdt	Institutions	0	0	0%	0%	0%	0%	0%	31%	0%	0%	0%	0%	0%	0%	0%	0%	0%
ŧ	Office Park	0	0	0%	0%	2%	0%	3%	27%	0%	0%	0%	0%	0%	0%	1%	0%	0%
	Box Retail	0	0	4%	50%	2%	33%	0%	6%	0%	4%	0%	0%	9%	0%	2%	0%	4%
જ	Interwar Parade	30	40	0%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%
xed Use	Mid 20 th Century Parade	70	90	0%	0%	1%	0%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	2%
Mixed Use	Adapted Victorian-Edwardian	70	110	0%	0%	1%	0%	0%	0%	4%	0%	1%	4%	0%	3%	0%	0%	1%
	Historic Blend	25	70	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	12%	14%	1%
o to	Contemporary Apartments	90	110	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
ţ	Late 20 th Century Apartments	120	140	3%	0%	1%	0%	1%	0%	1%	0%	0%	0%	0%	1%	0%	1%	1%
<u> </u>	Mid 20 th Century Apartments	40	60	0%	1%	2%	0%	1%	0%	3%	0%	0%	2%	0%	2%	0%	2%	0%
	Contemporary Responsive	50	60	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	0%	0%	6%	0%
ţ	21st Century Urban Extension	50	60	0%	15%	0%	18%	23%	0%	0%	4%	0%	0%	0%	0%	4%	0%	1%
toe a mo	Late 20 th Century Compact	40	60	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%
2	Mid 20 th Century Compact	40	60	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Victorian-Edwardian Terraces	50	70	0%	0%	0%	0%	0%	0%	9%	0%	2%	8%	1%	10%	0%	0%	0%
	Contemporary Housing	30	40	0%	2%	0%	2%	0%	12%	1%	21%	1%	0%	1%	0%	1%	1%	2%
	Late 20 th Century Housing	25	35	79%	2%	1%	6%	1%	4%	1%	50%	3%	1%	21%	1%	27%	4%	25%
Housing	Mid 20 th Century Housing	25	35	4%	1%	0%	1%	1%	7%	21%	13%	80%	71%	62%	24%	17%	42%	11%
	Radburn Homes	25	35	9%	6%	1%	0%	15%	1%	0%	1%	0%	2%	0%	0%	16%	16%	16%
	Postwar Housing	20	30	2%	0%	4%	6%	1%	2%	6%	0%	0%	0%	0%	8%	7%	1%	9%
	Interwar Homes	10	25	0%	1%	58%	2%	36%	9%	52%	0%	10%	6%	0%	48%	8%	2%	2%
	Victorian-Edwardian Houses	10	30	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1%	0%	0%	0%

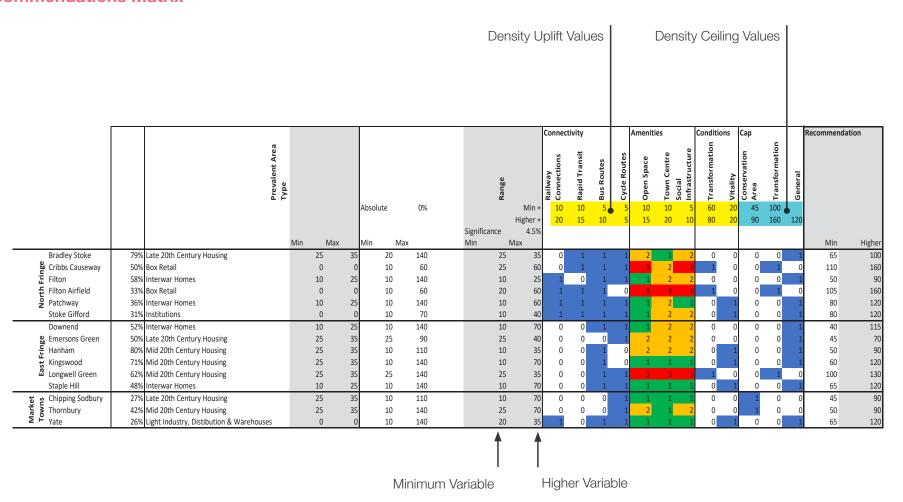
North Fringe

East Fringe

Market Towns

Appendix III

Recommendations Matrix



This matrix found on the previous page is the detailed version that underpins the "Recommendations Matrix" on page 97. This shows the working and a number of additional aspects including:

- The absolute / unadjusted minimum and maximum density recorded within the character study of each named area.
- The uplift value to both the minimum and higher density based on connectivity, amenities and special conditions.
- Those conditions that imply a cap to the density recommendations such as historic centres. This includes a general ceiling if the named area doesn't have any special conditions.

The Minimum Density recommendation is based on the recorded minimum, labelled as 'minimum variable', from the range for each named area. The Higher Density is based on the recorded maximum, labelled as 'maximum variable', from the range for each named area. These base figures are added to by the amount

shown highlighted in yellow labelled 'density uplift value':

- Connectivity are recorded as 'yes' / '1' or 'no' /
 '0'. Where they entry is 'yes' then the uplift value is applied. If the entry is 'no' then no uplift is applied.
- Amenities are weighted as 'good'/ 'sufficient' / 'weak' or '1'/ '2' / '3' respectively. If the entry is 'good' then the full uplift value is applied. If the entry is 'sufficient' then half the uplift value is applied. If the entry is 'weak' no uplift is applied.
- Conditions are applied in the same fashion as connectivity.

Cap provides a ceiling for the cumulated uplift based on the identified conditions. The stated figure highlighted in blue 'density ceiling value' acts as a minimum possible recommendation for the Minimum Density (i.e. it must be equal to or greater than this value) and the maximum possible recommendation for the Higher Density (i.e. it must be equal to or lower than this value). Each named area falls into one of the three conditions identified.

Using this approach, for example, Cribbs Causeway is applied as follows.

Cribbs Causeway starts with a recorded range of 25-60dph (omitting non-residential areas):

- 25dph is the base figure for the Minimum Density recommendation
- 60dph is the base figure for the Higher Density Recommendation

The following uplifts for Connectivity are applied:

- +20dph to the Minimum Density recommendation
- +30dph to the Higher Density recommendation

For Amenities only uplift for a 'sufficient' town centre is applied. This is half the possible uplift value. This amounts to:

- +5dph to the Minimum Density recommendation
- +20dph to the Higher Density recommendation

Because Cribbs Causeway is an area for transformative change the following uplift is also applied:

- +60dph to the Minimum Density recommendation
- +80dph to the Higher Density recommendation

These uplifts cumulate to:

- 110dph to the Minimum Density recommendation
- 180dph to the Higher Density recommendation

The cap is then applied to the cumulative value. As Cribbs Causeway is identified for transformative change the caps are applied as follows:

- At least 100dph, which is the same as cumulative uplift value causing no change to the Minimum Density recommendation.
- A maximum of 160dph to the Higher Density. As the cumulative uplift value is above this figure, it is reduced to match; reducing the Higher Density recommendation.

The resulting recommendation for Cribbs Causeway is:

- Minimum Density 110dph
- Higher Density 160dph

Each named area's recommendation is calculated using a formula reflecting the above description.

A density cap has been applied to the minimum density recommendation for Yate, due to the character study evidence set out on page 41 of this study. This identifies that the majority of the more peripheral areas within the 800m diameter study area are comprised of a combination of mid to late 20th Century housing, with densities ranging between 25-35dph.

A minimum density of 65dph therefore strikes a balance between responding to the existing character, and the need to significantly uplift densities, supported by the very good connections, range of shops & facilities, and the provision of open spaces. As with any of the areas identified in this study, a lower density may be justified, based on the considerations set out on page 95 under 'Minimum density'. All individual planning applications and development proposals will need to demonstrate they respond to the local context and avoid harm to character and amenity. This may also require a lowering of densities on some sites

Appendix IV

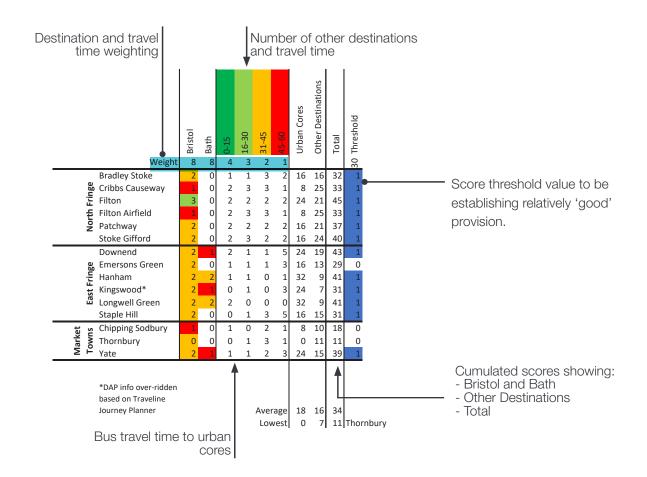
Good Bus Provision & Travel Times

This summary of bus route provision and travel times is based on the findings of the Data and Access Profiles (DAPs) for each named area.

This scores and weighs the bus provision and weekday travel times of each named area. This is done in two parts. First, weighing the travel times to urban cores of Bristol and Bath and second, weighing the number of other destinations served and their travel times. The other destinations are identified in the DAPs and include other centres such as Aztec West and Parkway railway station.

Weighted scores identify those named areas better served by bus routes with better travel times to urban cores and travel time and choice to other centres and destinations of interest.

Those areas better served by public transport - taking into account travel times and possible destinations - can support greater density. There are other aspects to service provision, such as bus frequency, and other quality indicators not addressed here that further enhances connectivity.



Glossary of Terms

Active Travel Refers to walking and cycling.

Box...... Buildings that of a simple and large box form, such as retail parks or warehouses. Also refereed to as 'sheds'.

Architectural Detailing

Bays An architectural term identifying the space between architectural elements. In the context of this study it refers to the organisation of windows on elevations; one window per floor is a single bay and two windows per floor is two bays (and so on).

Brise soleil A screen, often in the form of louvers (horizontal slats), placed on the outside of a building to shield the windows from direct sunlight.

Building Alignment

Continuous Buildings form a continuous linear line; all buildings are equally set back from the street.

Staggered.... Some buildings appear to step forward and some back.

Buildings do not form a continuous line; all buildings have a variety of different set backs from the street.

Fluid..... Buildings form a sinuous line creating a varied space in front of them, such as a varied street width.

Tracked..... Buildings form a continuous line that tracks a curved or sinuous street.

Elevation..... The vertical expression of the building, for instance, of particular interest to this study, the street facing wall between the ground and roof.

House types

Terraced Houses form a continuous row, each sharing a party wall with the next house.

Detached Houses are not attached to adjacent buildings.

Semi Houses are attached in pairs.

Cluster Apartments are clustered in small groups. Buildings are often not attached to adjacent buildings. Buildings can also be referred to as 'pavilions' due to their 'standalone' and compact appearance.

Slab Apartment buildings form a slab or ribbon, based on a long uninterrupted building footprint. They often contain a large number of apartments.

Radburn An approach to development that placed importance on the provision of open green space and the segregation of cars.

Described within "Radburn Homes" on page 47.

Named Areas. The thirteen areas featured in this study.

Out of Town Refers to a type of development that has primarily been designed for vehicles and is often of a single use such as out of town retail that generally comprises large box units with surface car parking in front.

Parking Ratio. The ratio between the number of homes and residential spaces. This is calculated by dividing the number of parking spaces by the number of homes. In effect, this can be read as the number of spaces provided per house.

Periods

Victorian Architecture and type of development that became prominent in the 1800s until approximately 1900.Edwardian Generally less detailed than Victorian architecture, from 1900 to 1910 (before World War I).

Interwar Development that occurred between World War I and World

War II, 1918 until 1939. Influenced by emerging ideas on health and environment attached to the arts and crafts and garden city movements. Generally comprises larger gardens and homes (relative to Victorian terraces and worker housing).

Postwar The period immediately after World War II, after 1945 with the approaches to development lasting until the 1950s.

Generally typified by austere, constrained material use and 'new' non-traditional construction methods such as prefabricated buildings.

Mid 20th..... Development taking place between 1950s to the 1970s. Generally typified by plain architecture, extensive standardisation and departure from tradition

Late 20th Development taking place from 1980s until 2000.

nash partnership

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