Staffordshire County Council

www.staffordshire.gov.uk

Highways Design Code

For new residential streets

February 2026



Staffordshire County Council

About this Design Code

Staffordshire Highways Design Code

This document has been prepared by PJA on behalf of Staffordshire County Council.

Compliance Checking, Assistance & Advice

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Chapter 1

About this document

1. About this document

Purpose

The purpose of this Design Code is to assist the delivery of new residential streets in Staffordshire as part of well-designed places in line with the National Design Guide as well as the National Model Design Code.

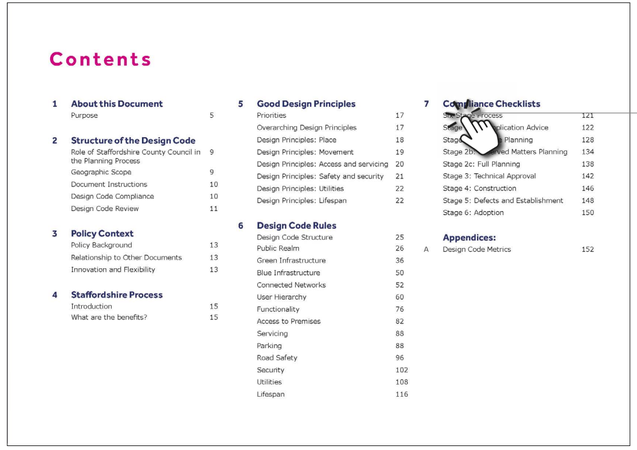
The document is structured to assist developers throughout the project life cycle from pre-planning engagement through to adoption and will be referred to by Staffordshire County Council in connection with the planning and design of new streets. It will also provide best practice guidance for developers and designers engaging in discussions with the Local Planning and Highway Authority.



Navigating the Design Code.

This Design Code is interactive.

Clicking the text on the contents page will take you to the relevant document section.



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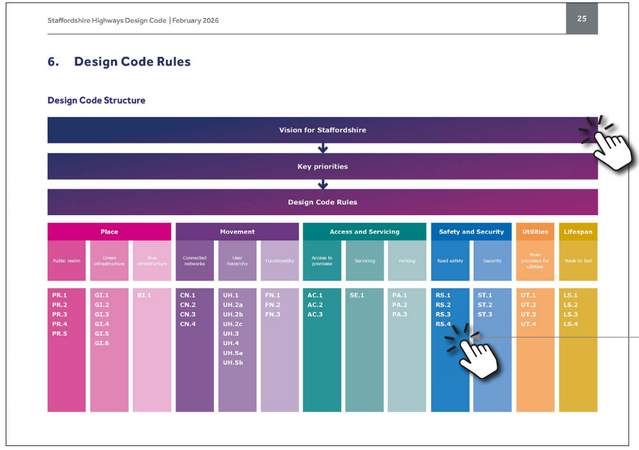
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This Design Code Rules are interactive. Where a section or external source is referenced, clicking the text will take you directly to the relevant section or external source.



6. Design Code Rules

Design Code Structure

Vision for Staffordshire

Key priorities

Design Code Rules

Place			Movement			Access and Servicing			Safety and Security		Utilities	Lifespan
Public realm	Green infrastructure	Blue infrastructure	Connected networks	User hierarchy	Functionality	Access to premises	Servicing	Parking	Road safety	Security	Roles: provision for utilities	Roles to last
PR.1 PR.2 PR.3 PR.4 PR.5	GI.1 GI.2 GI.3 GI.4 GI.5 GI.6	BI.1	CN.1 CN.2 CN.3 CN.4	UH.1 UH.2a UH.2b UH.2c UH.3 UH.4 UH.5a UH.5b	FN.1 FN.2 FN.3	AC.1 AC.2 AC.3	SE.1	PA.1 PA.2 PA.3	RS.1 RS.2 RS.3 RS.4	ST.1 ST.2 ST.3	UT.1 UT.2 UT.3 UT.4	LS.1 LS.2 LS.3 LS.4

Click the text to take you to the section.

Click on the Rule number and it will take you to the relevant page within the Design Code.

Chapter 2

Structure of the Design Code

2. Structure of the Design Code

Role of Staffordshire County Council in the Planning Process

The Highways Development Management team carries out duties on planning applications that have an impact on transport. This Design Code is intended to assist the delivery of well-designed places in line with the National Design Guide as well as the National Model Design Code.

The Highways Design Code will be used by Staffordshire County Council's highway engineers, drainage engineers and Public Rights of Way officers in responding to planning applications.

Geographic Scope

The Design Code covers highway design matters for the County, including the following District and Borough Council areas:

- Cannock Chase District Council
- East Staffordshire Borough Council
- Lichfield District Council
- Newcastle under Lyme Borough Council
- The Peak District National Park Authority (also operate as a Local Planning Authority within the County).
- South Staffordshire Council
- Stafford Borough Council
- Staffordshire Moorlands District Council
- Tamworth Borough Council

These areas are shown on Figure 01.

The existing highway network in Staffordshire comprises:

- Motorways
- Trunk Roads
- Primary Routes
- Strategic Routes
- Local Roads
- Vehicular Tracks
- Non-Vehicular Highways, Footpaths, Bridleways etc.

Motorways and trunk roads are the responsibility of National Highways whereas all other routes are the responsibility of the County Council.



Fig 01. Design Code Extents

Document Instructions

The Staffordshire Highways Design Code is a simple, three step process to be used by parties involved in the design, planning and adoption process for new streets and public spaces to be put forward to the Council as Highways Maintainable at Public Expense (HMPE). This document does not cover the design and approval of off-site highway works and agreements under Section 278 of the Highways Act and Section 111 of the Local Government Act.

As an overarching principle the Council will seek to minimise the extent of unadopted streets and public spaces to minimise the financial burden on residents.

The coding process is illustrated opposite.

Design Code Compliance

Departures from the Code will only be acceptable when a rationale for 'breaking' the Code is robustly justified, i.e. place making benefits, responding to new legislation and/or best practice or technological advancement.

Using this Document

Step	Instructions	Document Location
1	Review and apply VISION FOR STAFFORDSHIRE	Chapter 5 GOOD DESIGN PRINCIPLES
2	Review and apply DESIGN CODE RULES	Chapter 6 DESIGN CODE RULES
3	Review and follow COMPLIANCE CHECKLISTS	Chapter 7 COMPLIANCE CHECKLISTS

Fig 02. Design Code Instructions

Design Code Review

The Code has been written to align with current legislation, best practice, national and local policy.

It is expected that the Code will remain consistent with legislation, best practice, national and local policy for the short to medium term.

The County Council view the Code as a living document and may require the Code to be updated to ensure consistency with legislation, best practice and policy



Chapter 3

Policy Context

3. Policy Context

Policy Background

Staffordshire County Council will use this Code to test and review design proposals from inception to completion.

Code rules are focused on the minimum design requirements for new development within the County. These minimum requirements are set out in national and local policy, best practice and guidance.

The Highways Design Code is not intended to be absolutely prescriptive, but defines the parameters within which developments will be expected to come forward.

Relationship to other documents

This Design Code has been written to be fully in line with the principles of Manual for Streets (1 & 2) and Local Transport Note 1/20 (LTN 1/20), which are supported by the County Council and the Council's own Highways Base Specification.

The Design Manual for Roads and Bridges (DMRB) is often used for detailed highway designs, but should not be the starting point for the design of urban highways in Staffordshire. DMRB is the standard of National Highways and is primarily intended for major highways.

DMRB standards must only be applied as directed by Staffordshire County Council. Where it is applied to highway layouts it should be done so in a way which respects the overall principles set out in this document, which are derived from MfS and MfS2.

DMRB should be referred to for detailed guidance on all structural works such as retaining walls and bridges.

Innovation and Flexibility

While this Design Code, informed by the other documents referred to above, is generally considered to represent good practice in design SCC is always willing to consider alternative and innovative approaches, which will be judged on their merits.

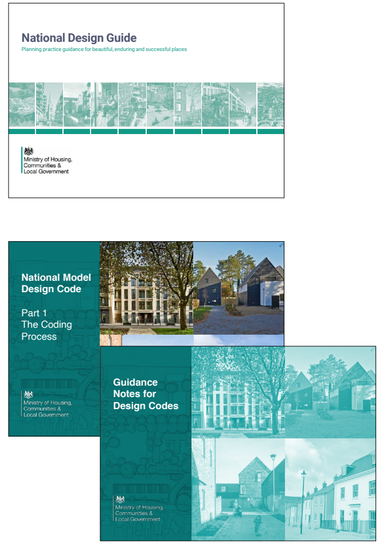


Fig 03. National Design Guide and National Model Design Code

Chapter 4

Staffordshire Process

4. Staffordshire Process

Introduction

Staffordshire County Council welcomes and encourages discussions before a Developer submits a planning application. Requesting the County Council's Pre-Application Advice is not mandatory.

Past experience has shown the discussions result in an improved application that is more likely to be successfully approved. Developers have found the Pre-Application process can reduce overall costs by cutting down on further work and time at the application stage.

Further information is also set out in 'Information for Developers – Pre-application Highways Advice' which can be accessed here.

What are the benefits?

The service has the following benefits:

- Potentially reducing the time and cost involved in working up proposals including that of the developer's professional advisers.
- Reducing the subsequent cost of abortive applications
- Information on what the developer needs to provide with their application.
- Help speed up the decision-making process once an application has been submitted.



Chapter 5

Good Design Principles

5. Good Design Principles

Priorities

The key priorities of this Design Code align with Staffordshire County Council Strategic Direction (2026-28

Overarching Design Principles

Streets have many functions, and whenever schemes and designs are being developed it will be essential to consider them holistically, to achieve and maintain a high standard of design which can be maintained cost effectively.

This means taking into account not only the physical aspects of the infrastructure, but also considering the street as a three-dimensional space, from all engineering, architectural, aesthetic and social standpoints. This will help understand how the proposed design will affect the way people use the street. It will inform the type of provision needed to satisfy the needs and aspirations of all users, whether they are living in, working in, visiting or simply travelling along the street.

In order to address this and contribute to the Vision for Staffordshire outlined above this Design Code sets out a series of overarching design principles which sit above the Design Code Rules set out in the following sections.

The overarching Design Principles MUST be addressed by all new residential developments.

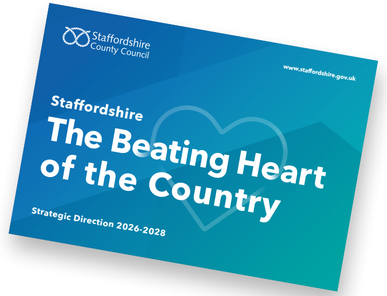


Fig 04. Staffordshire County Council Strategic Direction 2026-2028

Design Principles: Place

Public realm

Street networks **MUST** be designed in a way that delivers a sense of place.

Staffordshire is a rich and varied county, and its local identity varies considerably. Streets contribute to making high quality places for people to enjoy. They also form a crucial component of urban character.

SCC supports the creation of new streets that reflect this varied context and character and which respond to the place function as well as the movement functions required to create a high quality sense of place.

Reflecting local identity is important in creating this sense of place. It can foster civic pride and encourage community cohesion.

Green infrastructure

Streets **MUST** incorporate green infrastructure to enrich Staffordshire's amenity and biodiversity value and improve air and water quality.

SCC supports the creation of streets which enrich and protect Staffordshire's natural environment. This will contribute to enhanced ecological resilience and biodiversity.

Streets should have regular street trees, make a contribution to blue infrastructure and wherever possible, make positive use of existing natural features (trees, water and topography).

Blue infrastructure

Developments **MUST** incorporate SuDS to improve flood protection and create a county more resilient to the impact of climate change.

Specific designs will differ by location and will reflect the local context, site layout, local topography and geology. Detailed design guidance is available on the Staffordshire County Council SuDS Design Guidance website. However, all planning and design of SuDS must:

- Be designed to accord with the Environment Agency (EA) long term flood risk assessment, Construction Industry Research and Information Association (CIRIA) guidance, Defra non-statutory technical standards and the appropriate District or Borough Local Plan.
- Manage surface run-off as close to the source as possible.
- Consider the effects of climate change, such as increased rainfall intensity, in line with current Environment Agency and SCC guidance.

Design Principles: Movement

Connected Networks

Developments **MUST** create connected or 'permeable' networks that enable walking, cycling and wheeling and make places easy to navigate through.

Successful development depends upon a movement network that makes connections to destinations, places and communities, both within the site and beyond its boundaries

User Hierarchy

Street networks **MUST** be designed to respect the 'hierarchy of users' and facilitate all modes of transport.

The Hierarchy of Road Users is a concept embedded in the Highway Code (2023) that places those road users most at risk in the event of a collision at the top of the hierarchy. The hierarchy does not remove the need for everyone to behave responsibly. The road users most likely to be injured in the event of a collision are pedestrians, cyclists, horse riders and motorcyclists, with children, older adults and disabled people being more at risk.

SCC follows this user hierarchy. This aligns with the Council's ambitions to promote transport choice and healthy travel and contributes to Active Travel England's aim to make 50% of trips in England's towns and cities to be walked, wheeled or cycled by 2030.

Functionality

Streets **MUST** be designed to meet the movement needs of the volume and composition of users they carry.

Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places.

Street types should be determined by the importance of their place and movement functions, not solely their desired capacity or design speed. The decision on-street typology should be a collective decision with designers, planners, transport engineers and the local community. It must not be the sole decision of transport engineers.

Design Principles: Access And Servicing

Access to Premises

Streets MUST enable suitable and appropriate access to buildings and land off the public highway.

Providing direct access to properties, by all modes, is one of the distinguishing aspects of streets. Frontages that are directly accessible from the street are highly desirable in most circumstances as this helps to ensure that streets are lively and active places.

The principle that direct access to premises should be provided applies to both new streets within a development and existing streets and roads bordering a site.

Servicing

Street networks MUST enable service vehicles to reach necessary locations within the site.

Access for servicing should be well-integrated into developments, including for refuse collection, deliveries and removals.

Parking

Car parking is a key function of many streets, although it is not always a requirement.

Car parking is a key function of many streets, although it is not always a requirement.

Where permitted it should be designed to prevent causing safety problems, result in pavement parking, detract from visual quality or create congestion.

Design Principles: Safety And Security

Road Safety

Streets MUST be able to be used safely by a wide range of people, using all modes of transport and for everyday activities.

Staffordshire County Council has statutory duties to ensuring that the design of their streets are inclusive and to reduce the number of collisions and casualties.

New streets should therefore be designed to enable people of all abilities to use them and to achieve speeds of no more than 20mph.

Security

Streets networks MUST be designed to minimise the risk of antisocial and criminal behaviour.

Streets should be well-overlooked by buildings to give passive surveillance of the public realm and be well-lit. Designers should avoid creating hiding places cause by poor placement of trees and hedges which would create hiding places.

Street networks should be formed of straight or nearly straight routes wherever possible to create legible routes that foster personal security, support sustainable modes of transport and use land efficiently.

Lighting

Street networks MUST be provided with street lighting unless otherwise directed by SCC.

Street lighting contributes to:

- Reducing risks of night-time collisions.
- Assisting in the protection of property.
- Discouraging crime and vandalism.
- Making residents and street users feel secure.
- Enhancing the appearance of the area after dark.

Design Principles: Utilities

Utilities

Streets MUST integrate the requirements of utility providers without compromising the quality of place by obstruction of movement or visual intrusion.

It is important to consider the requirements of utility providers at an early stage to avoid impacts of user comfort, the quality of place, provision of trees and planting and future maintenance.

Utilities services and infrastructure include water supply, sewerage, drainage, gas, electricity, full fibre broadband, digital infrastructure and telephones.

Designs must consider:

- Location and siting of utility covers.
- Space requirements and visual impact.
- Convenient maintenance while not impeding the planting of street trees and lighting columns.
- Implications for foreseeable future changes in demand.

Design Principles: Lifespan

Made to Last

Streets MUST be made to last so that the costs and frequency of repair and renewal are minimised.

The long-term quality of streets must be ensured by identifying the organisation(s) responsible for the future maintenance of all of their elements.

Well designed streets and adopted spaces are:

- Planned for long-term stewardship by landowners, communities and local authorities from the earliest stages.
- Robust, easy to use and look after, and enable their users to establish a sense of ownership and belonging, ensuring places and buildings age gracefully.
- Adaptable to their users' changing needs and evolving technologies.
- Well-managed and maintained by their users, owners, landlords and public agencies.

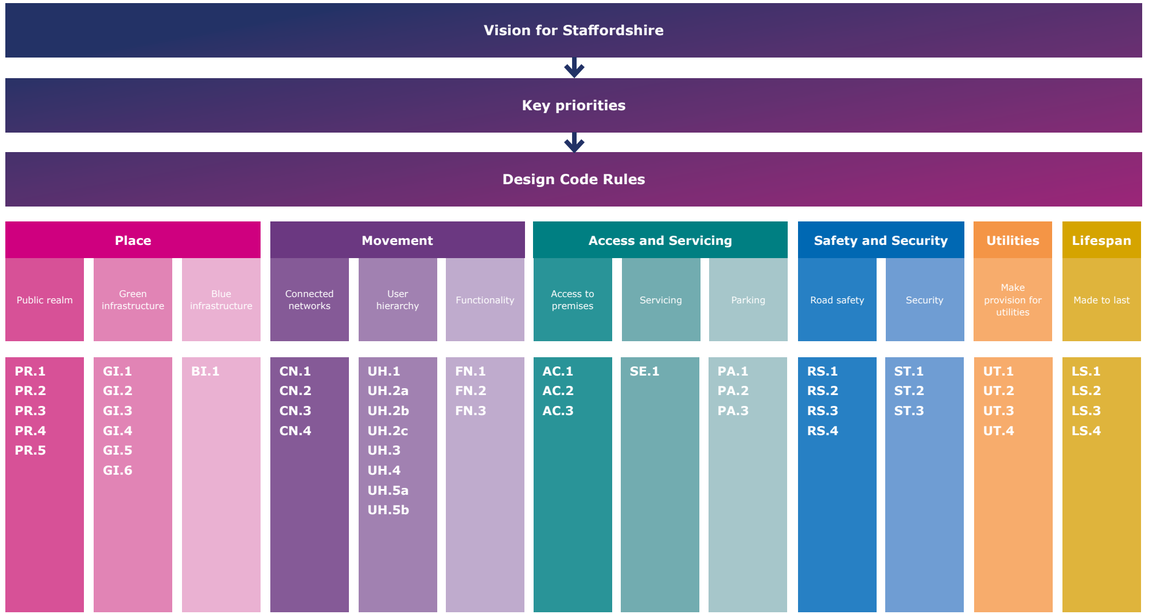


Chapter 6

Design Code Rules

6. Design Code Rules

Design Code Structure



Public Realm

Rule PR.1 - Street hierarchy and context

The design of streets and public spaces MUST be based on their place in the street hierarchy and their context.

Why is this important?

Streets have many functions, and whenever schemes and designs are being developed it will be essential to consider them holistically, to achieve and maintain a high standard of design which can be maintained cost effectively.

This means taking into account not only the physical aspects of the infrastructure, but also considering the street as a three-dimensional space, from all engineering, architectural, aesthetic and social standpoints. This will help understand how the proposed design will affect the way people use the street. It will inform the type of provision needed to satisfy the needs and aspirations of all users, whether they are living in, working in, visiting or simply travelling along the street.

Streets exist primarily to accommodate the movement of people and goods, whether on foot or in any type of vehicle. In addition, they give access to and from buildings of all types and contribute to their lighting and ventilation. They are a route for utilities and drainage, and are used for storage, particularly for vehicles. They are public spaces used by everyone, thus enabling essential social interactions of all kinds, from formal gatherings to chance meetings.

Instructions

The place function is essentially what distinguishes a street from a road. Roads take you from one place to another, but a street is a place in its own right. The sense of place is fundamental to a richer and more fulfilling environment. It comes largely from creating a strong relationship between the street and the buildings and spaces that frame it.

All these demands MUST be given due consideration if adequate, satisfying, and attractive street environments are to be created and maintained.

Exceptions Permitted

None.

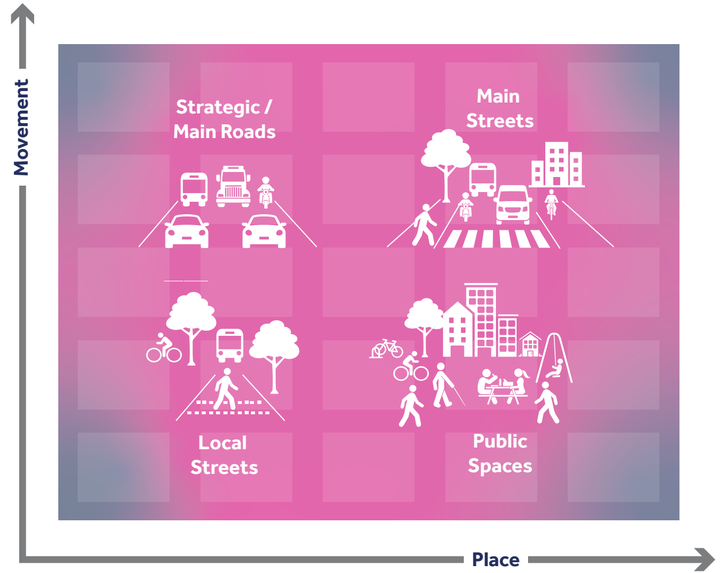


Fig 05. Typical road and street types in the Place and Movement hierarchy



Like this:
Balancing movement and place functions to create high quality public realm



Not like this:
Movement functions dominate creating a poor sense of place

Rule PR.2 - Encourage activity

Streets and public spaces MUST encourage activity and social interaction.

Why is this important?

Chapter 'Public Realm' of the National Design Guide[1] recommends new developments "Make sure public spaces support social interaction".

Streets and public spaces make up a large proportion of 'public realm' in Staffordshire. Creating streets and public spaces where people can meet each other and provide opportunities for social interaction helps to improve public health by encouraging physical activity and helping to tackle those affected by loneliness and isolation[2].

Well-designed public spaces, particularly streets, are designed to support an active life for everyone, and are maintained for continual use. It is important to design them to include all of the users who may wish to use them for activities such as socialising, informal doorstep play, resting and movement. Their success depends on them being fit for purpose, attractive places that people enjoy using.

Schools in particular help to build strong communities and provide a regular opportunity for people to meet. Schools should form active frontages to streets, where walking and cycling is prioritised.

Instructions

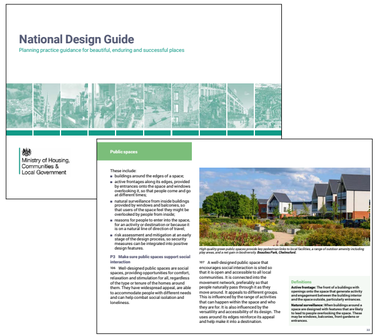
New developments MUST accord with Public Spaces P1, P2 and P3 of the National Design Guide.

- Create well-designed public space that encourages social interaction and that is open and accessible to all local communities.
- Forms part of a well-designed connected movement network, so that people naturally pass through it as they move around.
- Appeals to different groups.
- Influenced by the range of activities that can happen within the space and who they are for.
- Influenced by the versatility and accessibility of its design.
- The uses around its edges reinforce its appeal and help make it into a destination.

The Developer MUST confirm what public areas are for adoption as highway by SCC, for adoption by the LPA, conveyed to a Management Company or to remain under the control of the developer.

Exceptions Permitted

None.



Extract from the National Design Guide:
Paragraphs 106 and 107

[1] https://www.gov.uk/government/publications/national-design-guide
[2] Building for a Healthy Life, Integrated Neighbourhoods.



Like this:
Well-designed public space that encourages social interaction and that is open and accessible to all local communities.



Like this:
Places to interact are incorporated into the street design



Like this:
A new primary school is located to encourage activity and social interaction



Not like this:
Fenced off areas of open space



Not like this:
Overly dominant highway design



Not like this:
Overly dominant highway design

Rule PR.3 - Reflect and enhance local character

Streets MUST reflect and enhance local character. This can include public spaces, terminating vistas towards landmark buildings or varying street widths and enclosure ratios and using positive characteristics such as landscape character (see tree selection guide) and materials.

Why is this important?

Chapter 'Identity' of the National Design Guide[3] states that "The identity or character of a place comes from the way that buildings, streets and spaces, landscape and infrastructure combine together and how people experience them. It is not just about the buildings or how a place looks, but how it engages with all of the senses.

Local character makes places distinctive. Well-designed, sustainable places with a strong identity give their users, occupiers and owners a sense of pride, helping to create and sustain communities and neighbourhoods".

Instructions

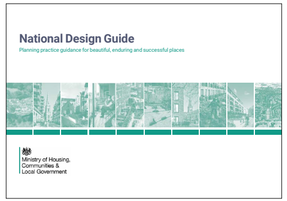
The design of streets and public spaces within Staffordshire should be influenced by existing context and elements which are valued by the local community. This can include public spaces, terminating vistas towards landmark buildings or varying street widths and enclosure ratios.

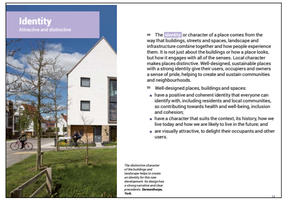
Determining these elements would require a character study, site visits, street design documentation and engagement with the local community.

Designers should refer to the relevant District and Boroughs' design codes and design guidance, character assessments, conservation areas and Neighbourhood Plans.

Exceptions Permitted

None.





Extract from the National Design Guide:
Identity

[3] https://www.gov.uk/government/publications/national-design-guide



Like this:
Terminating key vistas enhancing local character



Like this:
Pedestrian routes aligning to key vistas enhancing local character and aiding legibility



Like this:
Key routes terminated with buildings, with character that suits the context

Rule PR.4 - Mobility difficulties

Streets MUST provide help those with mobility difficulties to walk more easily between places.

Why is this important?

Loss of mobility has a great impact on a person's ability to use the built environment. Providing seating at regular intervals can help people with reduced mobility to more easily use public spaces. It can also be useful for those carrying heavy bags or who need to rest.

Instructions

'Inclusive Mobility - A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure' (Department for Transport)[4] sets out recommended walking distances for different uses without a rest.

New developments MUST provide opportunities to rest for those with mobility difficulties to walk more easily between places. Consideration should be given to the appropriate location of benches so as not to impede the footway and are best placed as part of pocket parks and open spaces and wide verges along the street network.

The figures in the following table are average recommendations - there is much variation between individuals. Gradients, weather conditions, whether there are handrails and other factors will also affect the distances people are able to walk.

An Equality Impact Asessment (EQIA) may be required by SCC.

Exceptions Permitted

None.

[4] https://assets.publishing.service.gov.uk/media/61d32bb7d3bf7f1f72b5ffd2/inclusive-mobility-a-guide-to-best-practice-on-access-to-pedestrian-and-transport-infrastructure.pdf



	Recommended distance limit without a rest
Wheelchair users	150 metres
Vision impaired people	150 metres
Walking stick and cane users	50 metres
Mobility impaired people without a walking stick	100 metres

Fig 06. Recommended distance limit without a rest (Extract from 'Inclusive Mobility')



Like this:
Space to sit and rest incorporated into the street



Like this:
Space to sit and rest incorporated into the key spaces



Like this:
Space to sit and rest incorporated into public space parallel to key pedestrian routes

Rule PR.5 - Signage and markings

Signage in streets MUST be kept to a minimum, carefully located and of a scale and appearance that is appropriate and in keeping with the local character.

Why is this important?

Traffic signs including road markings detract from visual quality and add significantly to the amount of street furniture, and it is important that opportunities are looked for to reduce excessive signing, where this would not have a detrimental impact on road safety.

Parliament sets the legislation governing traffic signs' appearance and meaning, but decisions about which signs to place and in which scenario is a matter for traffic authorities.
Research carried out in 2013 by the Department for Transport to inform the Traffic Signs Policy Review showed that the number of traffic signs had doubled in the previous 20 years.

The overuse of traffic signs blights the landscape, wastes taxpayers' money and dilutes important safety-critical messages. Clutter also increases risks to road workers and creates additional maintenance burdens.

The principles of good traffic management are in line with good streetscape design – neither is helped by over-provision and clutter. Therefore, this increase in traffic signs is unsustainable and rather than being erected to address a perceived single issue, they should be erected only where sound engineering principles / road safety concerns justify them.

Instructions

Where signage and/or markings are proposed developers MUST refer to Staffordshire Highways Base Specification.

Chapter 9 of Manual for Streets provides further guidance on the use of signage in streets. Designers should start from a position of having no signs, and introduce them only where they serve a clear function. Street layouts, geometries and networks should aim to make the environment self-explanatory to all users without the need for signage.

The Traffic Signs Regulations and General Directions 2016 (TSRGD) is a regulatory document which details every traffic sign prescribed for use in the UK. Detailed advice on the use of signs is contained in the Traffic Signs Manual, which gives advice on the application of traffic signs in common situations. Compliance with TSRGD is mandatory. The Traffic Signs Manual is guidance.

Guidance on minimising street clutter, including signs, is given in Local Transport Note 1/08, Traffic Management and Streetscape Traffic Advisory Leaflet 01/13, Reducing Sign Clutter, deals with traffic signage in particular.

Road Markings

'Chapter 5 – Road Markings' of the Traffic Signs Manual gives advice on the use of road markings in common situations. Unmarked junctions which require drivers to 'negotiate' their way through, may be used on low volume residential streets.

There is evidence that omitting centre lines on residential streets leads to lower speeds. Designers should therefore start with the presumption that centre lines will not be needed, other than in response to an identified safety problem.

Yellow road markings, such as those for waiting and loading restrictions, are particularly intrusive visually. Traffic Signs Manual Chapter 5 notes that the standard colour is BS381C No. 355 (Lemon) but allows for the use of No. 310 (Primrose) or No. 353 (Deep Cream) instead. Where markings are not adjacent to the standard yellow, No 353 Deep Cream should be used.

Traffic Signs

Manual for Streets contains helpful prompts for deciding on the appropriate level of signing for a street. This is set out in the table on the page opposite.

When putting up new signs careful thought should be given to the choice of 'x' height of signage. The standard 'x' height is often inappropriate because of the impact of the sign and because the topography, road standards, traffic flows and speeds are often all lower than is generally the case on the highway network. This means a reduced 'x' height can be justified. The impact of a reduced 'x' height on the size of a sign and its visual impact is dramatic.

Exceptions Permitted

None.

	Prompts
Users	• What signs are necessary to assist users, including non-motorised users? • Are directional signs needed for vehicular traffic, including pedal cyclists? • Is information provided in the necessary formats to be accessible to all? • Can navigation be assisted by means other than signs? For example, landmarks or other visual cues, etc. • Can road markings be dispensed with in some places?
Place	• How can necessary information be integrated into the place without dominating it? • Can some pedestrian directions signs be designed to contribute to the sense of place by using a locally distinctive format? • Are traditional direction signs appropriate for the setting?
Safety	• Are there any hazards that require signs? • Can significant locations, such as school entrances, health centres, local shops, etc., be indicated by a measure such as surface variation to reduce the need for signs?
Regulation	• What signing is necessary to give effect to TROs? • Is it necessary to regulate traffic on parking? • Can behaviour be influenced by means other than signing? For example, can parking be managed by the physical layout of the street?
Speed	• Are signs specified at the minimum size required for the design speed of traffic (new build) or 85th percentile speed (existing streets)? • Can traffic speeds be controlled by measures (such as planting to break-up forwards visibility)

Fig 07. Extract from 'Manual for Streets' (Table 9.1) provides prompts for deciding on the appropriate level of signing



Like this:
Where signs and lines are necessary they should be kept to a minimum



Not like this:
Cluttered and oversized signage

Green Infrastructure

Rule GI.1 - Existing trees

Existing trees MUST be retained if possible. If this is not possible, trees MUST be replaced at a 3:1 ratio with appropriate planting.

Why is this important?

It is the responsibility of developers to minimise the impact of new developments on all highway tree assets, especially those of high amenity value. Staffordshire County Council as the Highway Authority in Staffordshire will require compensation for the loss of highway tree assets under the road agreements process.

Existing trees of good quality can enhance the highway by providing shade, by filtering air-borne particulates, by cooling summer temperatures in urban areas and by intercepting rainfall.



Instructions

To ensure that trees are fully considered at an early stage in the design process, a Tree Survey should be carried out in accordance with British Standard BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. This will help to identify trees that merit retention due to their good condition, high visual amenity, and potential longevity. Trees should not be considered as constraints to the design. During development, retained trees must be protected in accordance with BS5837:2012.

Where removal of trees is unavoidable to facilitate necessary highway works or for health and safety reasons, a replacement ratio of 3:1 is required, or equivalent area if woodland or thicket is removed. Check that the proposals also satisfy any BNG requirements. Further information is provided in Staffordshire's Tree Planting Specification (March 2023).

Exceptions Permitted

Where space is limited, two smaller trees would be expected.

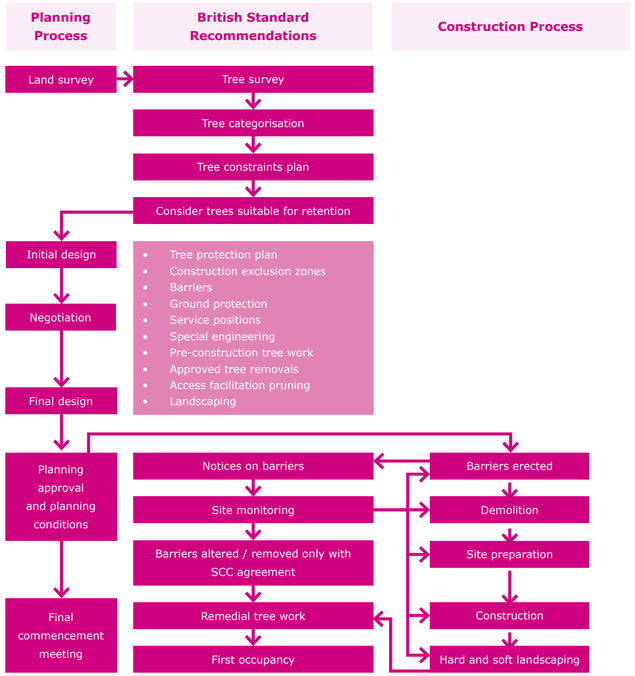


Fig 08. Process diagram - existing trees



Like this:
Existing trees incorporated with space to grow



Like this:
Existing trees incorporated with space to grow

Rule GI.2 - Root Protection Areas (RPA's)

Developers MUST have due regard for Root Protection Areas when designing around existing trees to be retained.

Why is this important?

To protect the root zones of existing trees to ensure survival and longevity of quality trees in the highway environment.

Instructions

Developers must produce a Method Statement and technical design details when works are to be carried out within the root zones of existing trees. Designers should follow the guidance in BS 5837:2012. No-dig, permeable paving solutions should be considered to avoid soil compaction, allow water percolation and encourage gaseous exchange to tree root systems.

The location and retention of existing desirable trees MUST be considered early in the design process to minimise conflicts with road layouts and junctions.

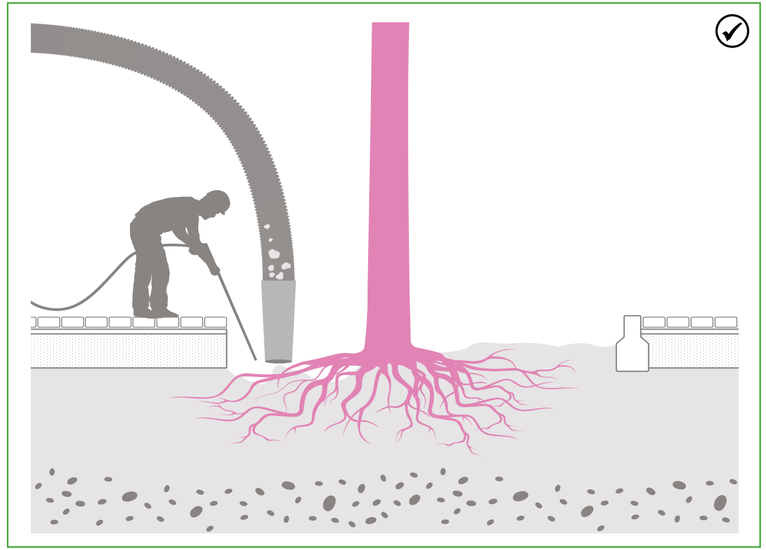
Method Statements and technical designs will be reviewed by SCC and all related works shall be carried out in accordance with the approved details.

Exceptions Permitted

None.



COPYRIGHT - NEED REPLACEMENT



Like this:
Existing trees protected during construction using no dig construction methods (air blasting and vacuum excavation of soil)



Like this:
Existing trees protected during construction



Not like this:
Existing trees not protected during demolition / construction

Rule GI.3 - Tree siting

The siting for the planting of trees MUST consider above ground and below ground constraints

Why is this important?

To ensure the long term survival of newly planted trees in the highway environment and avoid future removal due to clashes.

Instructions

The location of underground services shall be identified on drawings. The position of trees MUST be coordinated with street furniture, street lighting and signage. The final location of trees should avoid the potential for future above and below ground clashes. The ultimate size of the tree crown should be considered in the siting of proposed trees. Below ground root and utility protection systems which provide adequate rooting volume and protection to paved surfaces above are required.

For technical advice concerning planting specifications or species selection, expert advice should always be sought from a landscape architect or equally qualified supplier. Any proprietary products used should be installed in accordance with the manufacturer's recommendations. Soft verges MUST be of a suitable width to accommodate tree roots.

The potential for the future canopy spread to encroach on delivery vehicle routes must also be considered. Refer to SCC's species list for Urban and Rural sites for an approved list of species (SCC Highways Tree Planting Specification). A departure from this list must be agreed with SCC.

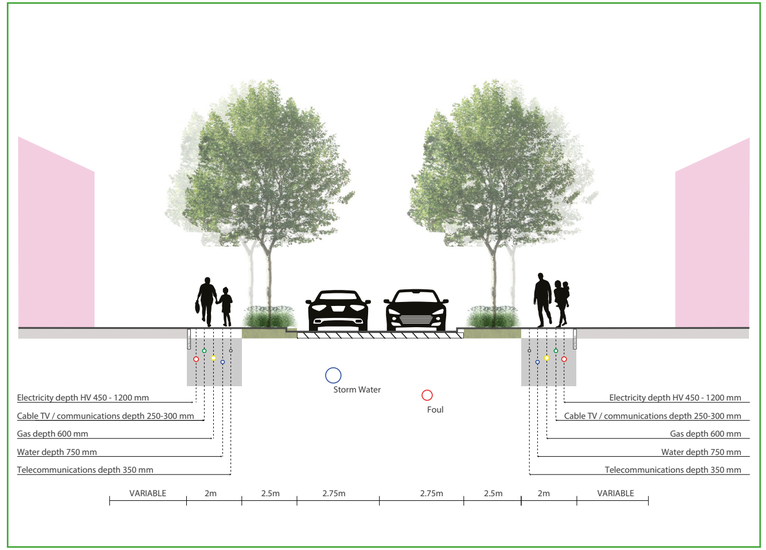
Where the position of trees is likely to require regular maintenance of the tree canopy, developers must provide maintenance requirements in the form of a landscape management plan including the schedule of works and a commuted sum for additional maintenance as agreed with SCC.

Exceptions Permitted

None.



Like this:
Well designed tree pits located within the public realm design



Like this:
Space for below ground constraints considered as part of the design development



Like this:
Trees designed within the streetscape



Not like this:
Tree unable to mature in pavement design and surface water unable to infiltrate

Rule GI.4 - Tree species

The choice of trees species MUST be capable of withstanding the urban environment and relate to the scale of context.

Why is this important?

To ensure the longevity of trees in the urban environment so that they may contribute to minimising the heat island effect in urban settings, contribute to reductions in air pollution, regulating urban temperatures, contribute to increased biodiversity within the urban environment and provide "beauty and greening" in the street scene to improve health and well being.

Highway trees should be given adequate space to mature and thereby contribute to the sense of place, green infrastructure and climate change mitigation.

Instructions

Refer to SCC's species list for Urban and Rural sites for an approved list of species. A departure from this list must be agreed with SCC.

Choose a variety of species with no more than 50% from any one family:

- Developers must refer to SCC Highways Tree Planting Specification.
- To avoid large scale losses should a species be affected by a disease.
- To provide colour and interest in the streetscene throughout the seasons.
- That are native in a rural environment, or characteristic of the area.
- That will contribute to an increase in biodiversity providing fruiting species for foraging where appropriate, including pollinator species that will contribute to the overall BNG for a scheme
- Specification of tree sizes should be considered carefully on a site by site basis. If the tree planting is in a paved area in a town centre, larger sizes may be more appropriate as a Select Standard might look "lost" in such an environment. Larger sizes can also be more resistant to vandalism as they are harder to snap. Expert advice should be sought and a sufficient budget allocated for the establishment and maintenance of trees.

Exceptions Permitted

Using single species groups may be appropriate to create an avenue or impact and character in a street scene to provide a sense of place or landmark feature.

Examples of urban tree species


Acer platanoides


Prunus avium


Acer campestre Streetwise


Betula utilis Jacquemontii


Quercus palustris


Alnus cordata


Platanus hispanica


Sorbus intermedia


Pyrus calleryana Chanticleer


Platanus orientalis 'Digitata'


Tilia cordata


Robinia pseudoacacia Bessoniana

Examples of rural tree species


Acer campestre


Acer pseudoplatanus


Alnus glutinosa


Betula pendula


Betula pubescens


Crataegus monogyna


Malus sylvestris


Pinus sylvestris


Populus nigra


Prunus avium


Sorbus aucuparia


Tilia cordata

Examples of approved species:
For the full list of approved species please refer to the SCC Highway Tree Selection Guide

Rule GI.5 - Respond to local landscape character

Proposals MUST include a variety of landscape types including verges and hedgerows that respond to the local landscape character

Why is this important?

Providing a variety of landscape types including trees, shrubs, ground flora and grasslands helps to define spaces and enclosure, creating a sense of place which increases sense of ownership, encourages active travel which improves well-being and contributes to biodiversity and aids nature recovery. Species selection reinforces local identity.

Instructions

Landscape character follows natural rather than administrative boundaries. Landscape character is firstly defined in the 'National Character Areas Natural England'. The species and landscape types that are included in any development must reflect the landscape objectives and opportunities identified for each national character area that falls within the county boundary which are listed below:

- 52 - White Peak
- 53 - South West Peak
- 61 - Shropshire, Cheshire and Staffordshire Plain
- 64 - Potteries and Churnet Valley
- 66 - Mid Severn Sandstone Plateau
- 67 - Cannock Chase and Cank Wood
- 68 - Needwood and South Derbyshire Claylands
- 69 - Trent Valley Washlands
- 72 - Mease/Sence Lowlands

Where available, district landscape character assessments must also be considered. This will provide a strategy for the choice of species and the most appropriate landscape types to be included in the development.

Exceptions Permitted

None.

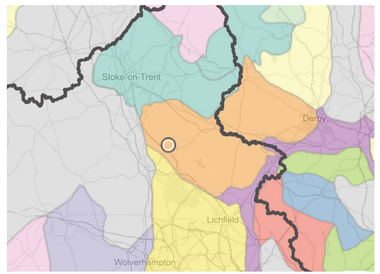


Fig 09. National Landscape Character Areas

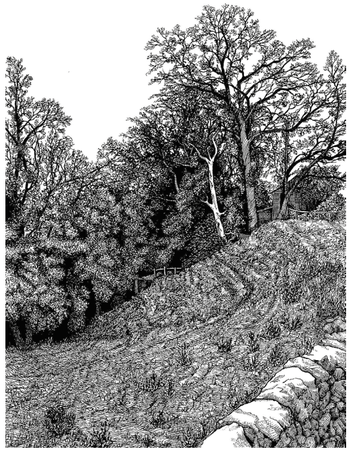
52 - White Peak



- Unique character and tranquillity of limestone dales owing to the dramatic karst geology and landscape includes features such as limestone grasslands, clear limestone rivers, streams and springs, ash woodlands and shelter belts, scrub of European importance.
- Building materials of limestone and gritstone, and roofs of stone and Welsh slate, fields enclosed by drystone walls. Protect and enhance the area's natural features.

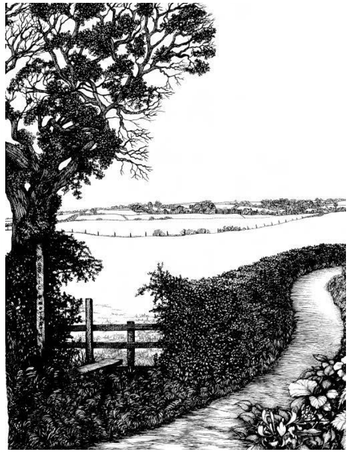
All sketches: Credit Ann Ross

53 - South West Peak



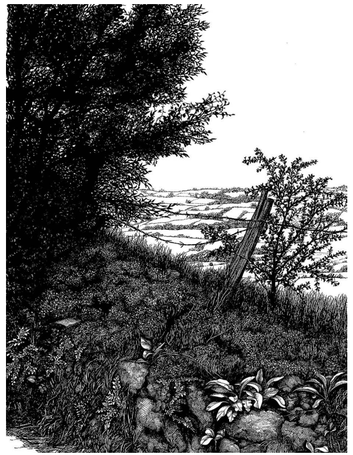
- An upland landscape of ridge and valley with Dry heath, blanket bog and oak woodland habitats of international and national importance. 65% of the area within the Peak District National Park.
- Reservoirs created by damming some rivers to provide drinking.
- Woodland cover is limited to mixed/broadleaved woodland in the valleys and lower slopes with conifer plantations in the uplands and reservoir valleys.

61 - The Staffordshire Plain



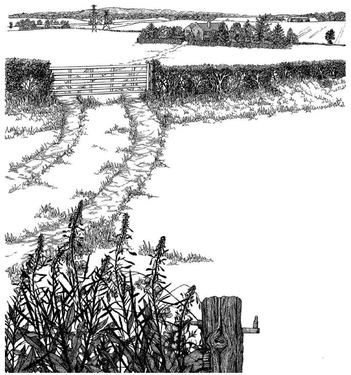
- A gently undulating plain overlaying glacial till producing clay soils. Strong well maintained field boundaries with few woodlands.
- Fertile pastures support dairy farming whilst lighter soils support arable crops of mainly potatoes and combinable crops.
- A series of ridges form prominent landscape features characterised by steep sides and semi natural woodland, notably absent from the rest of the plain.

64 - Potteries and Chunet Valley



- The Churnet flows southeast flanked by broad leaved semi natural woodland on the river valley slopes, riparian woodland provides valuable habitat.
- Industry from clay extraction and coal mining has also shaped the landscape and settlement pattern.
- Hedgerows with hedgerow trees retain field boundaries of lower elevations giving way to dry stone walls and moorland on higher slopes.

66 - Mid Severn Plateau



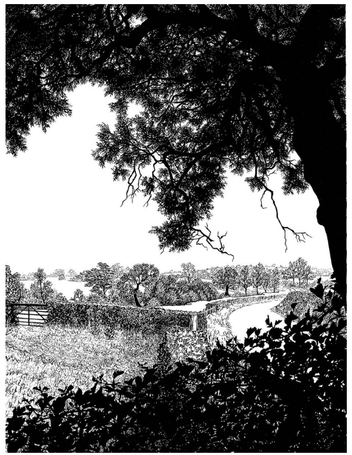
- Industrial heritage is legible in the landscape such as open cast sites, spoil heaps, tips and abandoned quarries and the character of settlements such as Ironbridge along the Severn Valley together with inland river ports, bridging towns and canals.
- Higher elevations are characterised by rolling landform and treelined ridges and heathland.
- Lower river valleys provide freshwater and wetland habitats and public water supply from reservoirs.

67 - Cannock Chase and Cank Wood



- Cannock Chase is a National Landscape (formerly known as AONB) with a varied landscape with extensive views from higher ground. It lies on the urban fringe of the Black Country heathland with small wood and fragments of farmland with varied enclosure, much of it in Green Belt.
- Dense urban areas of Birmingham and Black Country and industrial heritage character with rich canal network and associated habitats.
- The hedgerows are characteristic of the Midlands consisting mainly of hawthorn with hedgerow trees.

68 - Needwood Claylands



- A rich historic floodplain landscape of river valleys of Blithe, Dove, Trent and Derwent together with Blithfield Reservoir support grazing marsh, wet woodland and unusual basin mire and inland salt marsh.
- There are significant areas of commercial woodland, ancient woodland wet woodland. Parkland distributed throughout provides species rich grassland ancient trees and wood pasture.
- Settlement is dispersed and villages are distinctive with red brick and clay tiles.

69 - Trent Valley and Washlands



- A pastoral landscape of floodplains with rivers, canals waterbodies and wetlands important for recreation, biodiversity and wetland habitats.
- Extraction of water in the middle reach support agriculture and industry as well as human consumption causing fragmentation by settlement, industry and transport infrastructure.
- Waterside trees of pollarded willows, ash, alder and poplar and occasional black poplar are present along water features but are no longer managed.

72 - Mease Lowlands



- Gently rolling largely agricultural rural landscape of low hills and flat river valleys. Farmland is productive with generally open fields with low hedgerows and trees punctuated by woodland edges and copses on higher slopes on less productive land.
- Staffordshire tiles and red brick are the prominent vernacular of buildings in historical settlement.
- Urban expansion on the fringe is putting pressure on the rural landscape.

Rule GI.6 - Maintenance

Landscape proposals MUST be easily managed and maintained and shall have been well established in the ground for a minimum of 5 years when offered for adoption.

Why is this important?

To ensure longevity and contribution to wider landscape and biodiversity and avoiding public funds being spent unnecessarily on replacement of planting and maintenance.

Instructions

Planting shall ONLY be adopted if 5 years maintenance has been carried out by the developer. At the end of the aftercare period, contact should be made with Staffordshire County Council's Asset and Network Management Team to ensure a smooth transition regarding responsibility for maintenance and safety of landscaping within the highway boundary.

The following is required in order for SCC to adopt the landscape scheme:

- Landscaping MUST be successfully established when offered for adoption. It is accepted that a percentage of failures is possible however, the developer should be able to demonstrate a minimum 90% successful stocking rate.
- All temporary tree protection (stakes, guards etc) must be removed before planting is adopted.
- An up to date landscape management plan with a schedule of maintenance works that will ensure that contribution to 10% BNG (or greater depending on LA requirements) can be achieved over 30 years.
- As built drawings and specifications.
- Health and Safety File.
- Commuted sum provided (agreed with SCC).



TREE PLANTING, STANDARD SPECIFICATION

Exceptions Permitted

None.



Not like this:
Tree tie has not been removed resulting in damage to the tree during growth



Like this:
Well planted semi mature tree, with appropriate protection and below ground infrastructure



Not like this:
Tree planted in compacted soil. Stakes too large, mulch too deep.

Blue Infrastructure

Rule BI.1 - Sustainable Drainage Systems (SuDS)

Staffordshire County Council is committed to achieving Sustainable Drainage Systems (SuDS) in streets in new developments. SuDS will also add value in terms of Green Infrastructure and biodiversity.

Why is this important?

To deliver the Flood Risk Management Strategy[6] and achieve a reduction in the potential for flooding, deliver environmental enhancements, make places more climate resilient and respond to climate change.

Instructions

Submit for approval by the Lead Local Flood Authority (LLFA) a Drainage Strategy and highway drainage design scheme as part of the development.

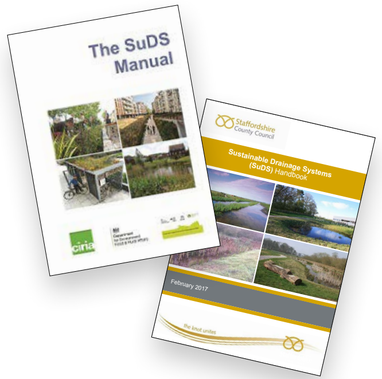
The LLFA has a preferred discharge hierarchy of infiltration, discharge to a watercourse, discharge to a surface water sewer or discharge to a combined sewer. To be supported, proposals are required to satisfactorily demonstrate all of the following:

- MUST include mitigation within storage calculations for future climate change, designed to 100yr + Climate Change, currently 40%.
- MUST be designed to accord with the Environment Agency's (EA) long term flood risk assessment, Construction Industry Research and Information Association (CIRIA) guidance, Department for Environment Food & Rural Affairs (DEFRA) non-statutory technical standards and the appropriate District or Borough Local Plans.
- MUST manage surface run-off as close to the source as possible to reduce flood risk and improve water quality.
- That the discharge of surface run-off is as high up the SuDS hierarchy of drainage as possible. Daylight (open) SuDS will be preferred; and
- That adequate arrangements have been made for the adoption, management and maintenance of any SuDS provided over the lifetime of the development.

Exceptions Permitted

If SuDS is inappropriate and surface water run-off can be alternatively managed in an appropriate manner and clearly justified; or

For minor developments a SuDS is not viable or technically feasible and surface water run-off can be alternatively managed in an appropriate manner.



[6] https://www.staffordshire.gov.uk/Environment/Flood-Risk-Management/Local-Flood-Risk-Management-Strategy.aspx

Sustainability level	SuDS Technique	Flood Reduction	Pollution Reduction	Wildlife & Landscape Benefit
Most sustainable (preferred)	Green / living roofs and walls	✓	✓	✓
	Infiltration: Infiltration trenches & basins	✓	✓	✓
	Filter strips and swales	✓	✓	✓
	Basins and ponds: Wetlands, Balancing ponds, Detention basins, Retention basins, Conveyance swales	✓	✓	✓
	Permeable surfaces & filter drains: Gravelled areas, Porous paving	✓	✓	
Least sustainable	**Tanks & piped systems:** Crated attenuation, Tanks, Oversized pipes	✓		

Fig 10. Sustainability Hierarchy for SuDS selection



Like this:
Attenuation ponds with well considered landscape treatments



Like this:
Swales adjacent to the highway incorporating tree planting

Connected Networks

Rule CN.1 - Connected and permeable network

The street network MUST create a connected and permeable network for pedestrians and cyclists, providing routes along desire lines which allow for direct movement, both within and beyond the site.

Why is this important?

A connected street network offers a diverse selection of streets for navigating through an area and reaching various destinations. It should establish direct routes within residential neighbourhoods to enable efficient travel by walking, wheeling, and cycling to both on and off site facilities.

These direct routes enhance the appeal of walking and cycling, boost activity levels, and contribute to making the streets feel safer and more inviting. Such networks form the foundation of many of our most beautiful and frequently used places. They are robust, flexible, consider environmental impacts and have been shown to stand the test of time[7].

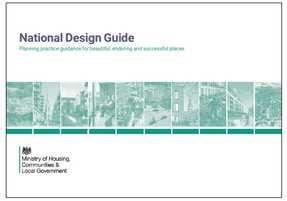
Instructions

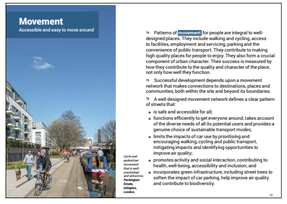
- In a well-connected network, each street has more than one connection to another street.
- Permeability for different users, such as cars or delivery vehicles, can be controlled by measures within the street space, for instance, to prevent through movement or limit access to certain times of the day.
- The route network should be as direct, if not more direct for those walking wheeling and cycling than for the private car.
- The design of the street network serving schools in particular should give priority to those walking, wheeling and cycling to school to make these modes of travel more attractive than the car. Car parks at the school for the drop off and collection of children should not be provided.
- Design to achieve the principles of 'School Streets' are a good way of prioritising active travel and can be used in new developments. TRO's to limit vehicular access to streets fronting schools should only be used where it is not possible to achieve outcomes via design - see https://www.gov.uk/government/publications/school-streets-how-to-set-up-and-manage-a-scheme/school-streets-how-to-set-up-and-manage-a-scheme

[7] NMDC Guidance Notes, Section M.1.i 'The Street Network'.

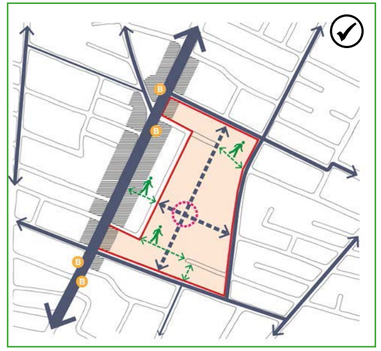
Exceptions Permitted

None.





Extract from the National Design Guide:
Movement



Extract from the National Design Guide:
Movement

Well-designed places have a hierarchy of well-connected routes, such as boulevards, streets, roads, avenues, mews and courts.

New developments help to reinforce or extend the movement network. For pedestrians and cyclists, direct links create good connections to public transport and promote active travel, particularly where they are along routes with low levels of vehicular traffic.



Like this:
Direct and legible routes are available for pedestrians and cyclists



Like this:
Direct and legible routes are available for pedestrians and cyclists



Not like this:
Frustrated connections for walking, wheeling and cycling



Not like this:
Frustrated connections for walking, wheeling and cycling

Rule CN.2 - Public Rights of Way (PRoW)

Existing public rights of way through developments MUST be retained and enhanced.

Diverting or altering a public right of way should only be a last resort, and, wherever possible, the right of way should be incorporated into the development as a positive feature.

Why is this important?

Public Rights of Way (PROW) ensure that people have access to paths, trails and routes that connect different parts of communities. They are part of an integrated transport network and the accessibility of these is crucial for those that do not have access to the private car. Regular use of these paths promotes physical health, well-being and social inclusion.

Under the Highways Act 1980, local highway authorities have a statutory duty to maintain and protect PROWs. This includes ensuring paths are clear of obstructions, adequately signposted, and safe for public use.

Instructions

- It is essential that developers ascertain what public rights of way cross the site at the earliest opportunity.
- The interactive map below shows public footpaths and bridleways across Staffordshire: 'Map of footpaths and bridleways - Staffordshire County Council'
- Diverting or altering a public right of way should only be a last resort, and, wherever possible, the right of way should be incorporated into the development as a positive feature.
- PROW should be incorporated into the green infrastructure network of the development, where possible, to connect parks and other open spaces.
- Development of the masterplan could enhance the heritage, history and cultural significance of PROW through interpretative signage or art installations.

Exceptions Permitted

Solutions to issues that the existence of public rights of way could cause should be sought before a planning application is submitted. Otherwise the development may be delayed or worse, be halted completely. Furthermore, obstruction of a public right of way may lead to enforcement action or prosecution as obstructing a right of way without the necessary confirmed legal order in place is a criminal offence. Properties can be blighted when an existing public right of way has not been acknowledged within the planning proposal documents. This can prevent the sale of affected properties or cause a claim to be made against the developer.

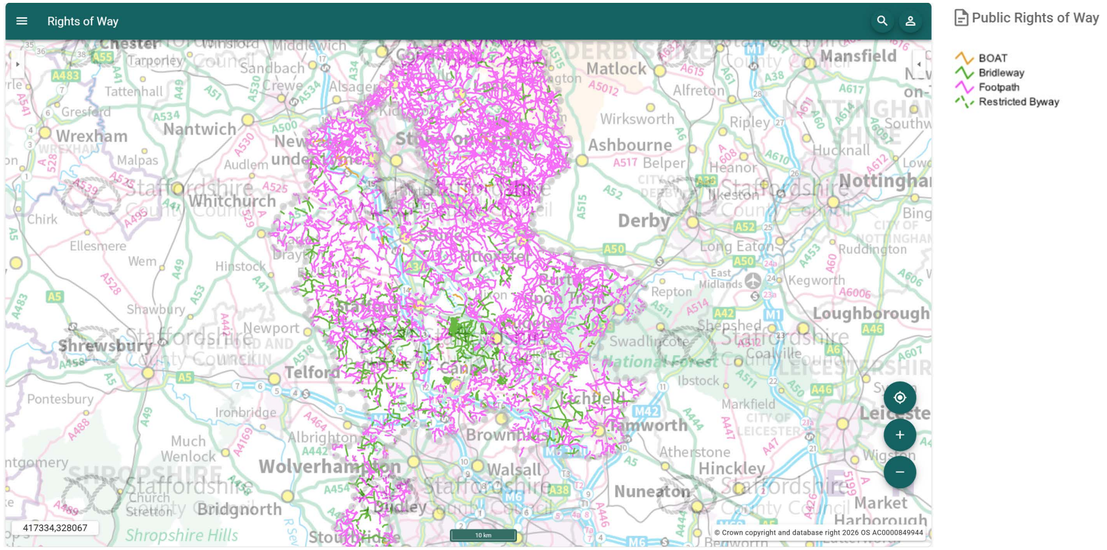


Fig 11. Hyperlink to Staffordshire Public Rights of Way Map

Rule CN.3 - Cul-de-sacs and shared private drives

Cul-de-sacs and shared private drives should be kept to the minimum and MUST provide connectivity for walking and cycling.

Why is this important?

Private drives and longer cul-de-sacs can create discontinuities in the street network, and may result in emergency vehicles travelling further which can delay response times. Private drives can also create barriers which inhibit a direct route for those walking, wheeling and cycling, resulting in isolated neighbourhoods.

Cul-de-sacs where provided, MUST provide connectivity to other streets within the development, enabling direct and convenient routes where vehicle routes may be more convoluted.

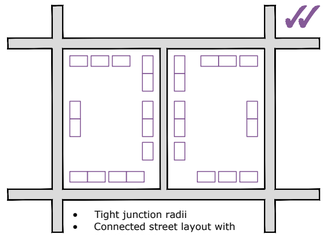
Instructions

- Pedestrian and cycle paths MUST be provided to link cul-de-sacs to ensure permeability through the development. These routes should be well lit, overlooked and benefit from natural surveillance.
- Where feasible, design the street layout using a grid pattern rather than relying solely on cul-de-sacs. Grid networks provide multiple interconnected routes, offering alternative paths for drivers and enhancing connectivity between neighbourhoods.

Exceptions Permitted

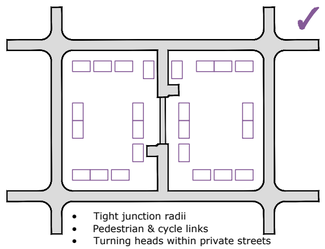
None.

Preferred solution:



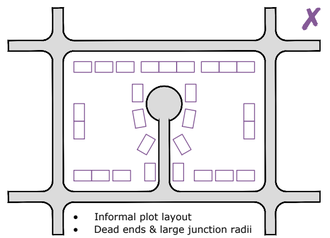
Alternative solution:

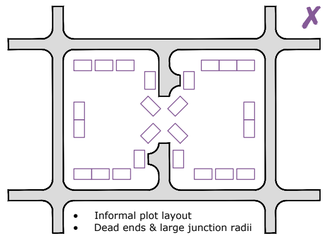
Only permitted if preferred solution is not technically feasible



Like this:

Connected streets with permeability for walking and cycling





Not like this:

Disconnected streets with cul-de-sac arrangements



Like this:

Edge lanes with connectivity for pedestrians and cyclists



Not like this:

Disconnected private driveways prioritise vehicles over pedestrians and cyclists

Rule CN.4 - Limits of adoption

The limits of adoption MUST be taken up to the boundary of the site to facilitate future connections.

Why is this important?

Connectivity between areas of existing and new development MUST be well maximised, particularly for active travel and public transport, to achieve community integration, maximise public transport efficiency and enable people to reach local facilities with minimum effort.

Common practice in the past has been for developers to retain 'ransom strips' - small areas of land at the end of adopted highways - giving them control over access into neighbouring land. This practice encourages developers of these future parcels to seek access elsewhere, meaning these potential points of connectivity are never taken up.

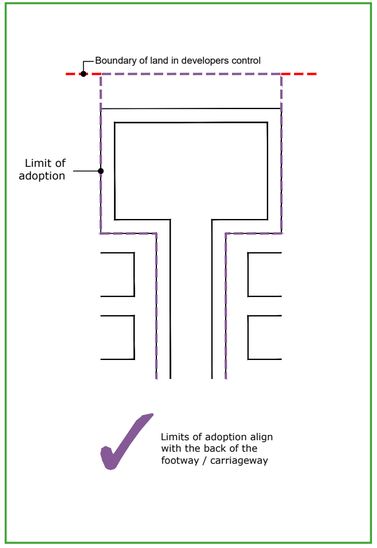
Staffordshire County Council will therefore require adoption limits to be taken up to the boundary of the land in the developer's control so that the highway authority is in a position to provide access to the adopted street network.

Instructions

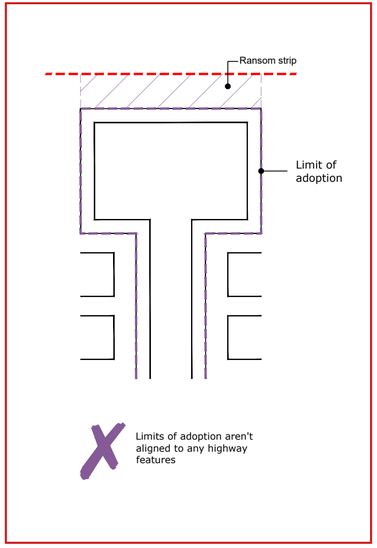
The boundary of the land offered for adoption under Section 38 of the Highways Act 1980 MUST be taken up to the limits of the land in the applicant's control.

Exceptions Permitted

None.



Like this:
Limits of adoption align with the back of the footway / carriageway



Not like this:
Limits of adoption aren't aligned to any highway features



Not like this:
Small areas of land at the end of adopted highways

User Hierarchy

Rule UH.1 - User hierarchy in the street network

The street network MUST be designed in accordance with the user hierarchy so that external and internal accessibility are provided for across all modes of travel. Traffic management (e.g. bus gates, filtered permeability) may be used to achieve this.

Why is this important?

The Hierarchy of Road Users is a concept embedded in the Highway Code (2023)[6] that places those road users most at risk in the event of a collision at the top of the hierarchy. The hierarchy does not remove the need for everyone to behave responsibly. The road users most likely to be injured in the event of a collision are pedestrians, cyclists, horse riders and motorcyclists, with children, older adults and disabled people being more at risk.

SCC follows this user hierarchy. This aligns with the Council's ambitions to promote transport choice and healthy travel and contributes to Active Travel England's aim to make 50% of trips in England's towns and cities to be walked, wheeled or cycled by 2030.

Instructions

In the past, road design hierarchies have been based almost exclusively on the importance attributed to vehicular movement. This has led to the marginalisation of pedestrians and cyclists in the upper tiers where vehicular capacity requirements predominate. The principle that a road was primarily for motor traffic has tended to filter down into the design of streets in the bottom tiers of the hierarchy.

Our objective is that 50% of trips in Staffordshire be walked, wheeled or cycled by 2030 in line with Active Travel England's objectives.

By making everyday journeys simple, easy and fun, this Design Code is working to give people the choice to leave their car at home when traveling to/ from or around the town centre.

The propensity to walk or cycle is influenced not only by distance, but also by the quality of the experience. Routes through the network should be accessible for all users and free of barriers and obstructions.

New developments MUST consider pedestrians and cyclists first, followed by consideration for others in the order given in line with the principles set out in Gear Change[6], Manual for Streets[6] and LTN 1/20 Cycle Infrastructure Design[6].

The five core design principles which MUST be followed represent the essential requirements to achieve more people travelling on foot or by cycle, based on best practice both internationally and across the UK.

- **Coherent** - Routes must form a coherent network linking trip origins and key destinations, and they must be at a scale appropriate to the users.
- **Direct** - In general, networks must allow people to go where they want, unimpeded by street furniture, footway parking and other obstructions or barriers.
- **Safe** - Infrastructure must not only be safe but also be perceived to be safe – this applies to both traffic safety and crime.
- **Comfortable** - Comfortable conditions require routes with good quality, well-maintained smooth surfaces, adequate width for the volume of users.
- **Attractive** - Aesthetics, noise reduction and integration with surrounding areas are important – the environment must be attractive, interesting and free from graffiti and litter, etc.

This helps ensure that the street will serve all of its users in a balanced way

Exceptions Permitted

None.

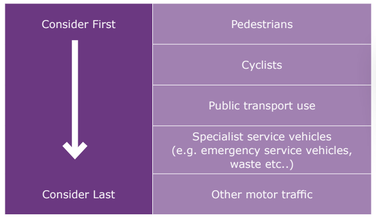


Fig 12. User hierarchy - extract from Manual for Streets





Like this:
Direct and legible routes are available for pedestrians and cyclists



Not like this:
Confusing disconnected routes

[6] https://www.gov.uk/guidance/the-highway-code
[6] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/341513/pdfmanforstreets.pdf
[6] https://assets.publishing.service.gov.uk/media/5ffa1f96d3bf7f65d9e35825/cycle-infrastructure-design-ltn-1-20.pdf

Rule UH.2a - Pedestrian Comfort - Continuous Footways

Streets MUST be comfortable and safe for walking, wheeling and cycling, including suitable crossings on desire lines, at priority junctions and private accesses with continuous footways or small corner radii.

Why is this important?

Continuous footways:

Continuous footways are extensions of the pedestrian space, and cycle lanes where applicable, across the carriageway of a side street at intersections with primary or secondary streets. They differ from older side entry treatments which raise the carriageway but do not provide a continuation of the pavement. Continuous crossings have numerous benefits, including:

- Providing an uninterrupted route for walking, wheeling and cycling;
- Providing a clear visual and tactile indication that pedestrians, other non motorised users and cyclists have priority, in line with the movement hierarchy;
- Reducing vehicle approach and turning speeds; and
- Providing a 'gateway' feature to indicate the transition from a primary or secondary street to a local street or tertiary, signalling the need for drivers to behave differently in the new environment.

Instructions

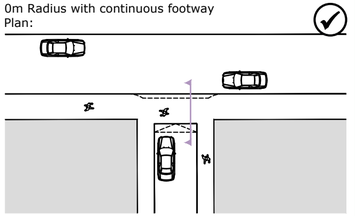
Continuous Footways:

- Continuous footways MUST be used across minor junctions and private accesses on key pedestrian desire lines.
- The crossing should be designed to provide clear visual continuity of the footway across the side street, they should be as simple as possible and avoid any unnecessary changes in material or road markings.
- The crossing must be the same width as the main footway and use the exact same surfacing material. If the existing pavement comprises asphalt in the same colour as the carriageway, a contrasting pavement material should be used for the crossing a short section either side (typically 3.0m) to differentiate.
- The crossing should include a ramp up to the level of the pavement, to provide a level surface for pedestrians and reduce vehicle speeds, with dedicated kerbs now available in the UK to facilitate this.

Exceptions Permitted

None.

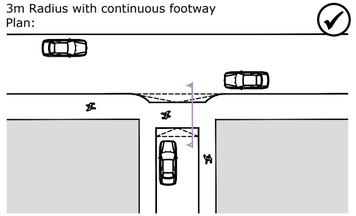
0m Radius with continuous footway
Plan:



- The crossing must be the same width as the main footway and use the exact same surfacing material.
- If the existing pavement comprises asphalt in the same colour as the carriageway, a contrasting pavement material should be used for the crossing (a short section either side, typically 3.0m) to differentiate.

Like this:
Small radius (e.g. 1 metre) ensures that the pedestrian desire line is maintained

3m Radius with continuous footway
Plan:



- The crossing must be the same width as the main footway and use the exact same surfacing material.
- If the existing pavement comprises asphalt in the same colour as the carriageway, a contrasting pavement material should be used for the crossing (a short section either side, typically 3.0m) to differentiate.

Like this:
Small radius (e.g. 1 metre) ensures that pedestrians do not have to look further behind them to check for turning vehicles



Like this:
0m radius continuous footways provide continuity for pedestrians



Like this:
3m radius continuous footways provide continuity for pedestrians

Rule UH.2b - Pedestrian Comfort - Corner Radii

Streets MUST be comfortable and safe for walking, wheeling and cycling, including suitable crossings on desire lines, at priority junctions and private accesses with continuous footways or small corner radii.

Why is this important?

Small corner radii:

Pedestrian desire lines should be kept as straight as possible at side-road junctions unless site-specific reasons preclude it.

Small corner radii minimise the need for pedestrians to deviate from their desire line and reduces the crossing distance. Tightening up corner radii also reduces the chance for left hook collisions involving cyclists on the carriageway.

Exceptions Permitted

None.

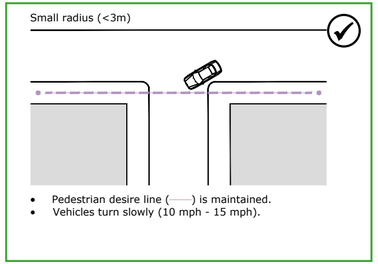
Instructions

Small corner radii:

- Where continuous footways are not used, small corner radii with dropped kerbs and tactile paving MUST be used.
- Dropped kerbs with the appropriate tactile paving should be provided at all side-road junctions where the carriageway and footway are at different levels. They should not be placed on curved sections of kerbing because this makes it difficult for blind or partially sighted people to orientate themselves before crossing.
- Appropriate tactile paving MUST be provided in accordance with 'Guidance on the Use of Tactile Paving Surfaces' [6] (2021).
- Where small corner radii, large vehicles may need to use the full carriageway width to turn. Swept-path analysis can be used to determine the minimum dimensions required.
- The footway may need to be strengthened locally in order to allow for larger vehicles occasionally overrunning the corner.

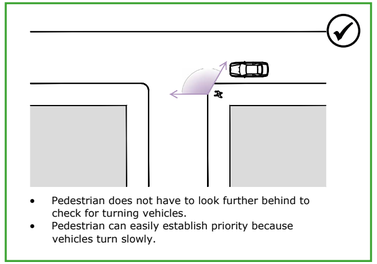
[6] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1046126/guidance-on-the-use-of-tactile-paving-surfaces.pdf





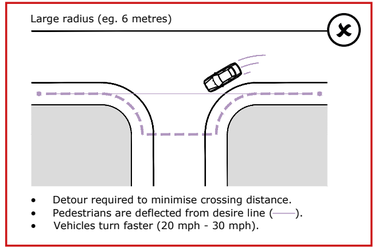
Like this:

Small radius (<3 metre) ensures that the pedestrian desire line is maintained



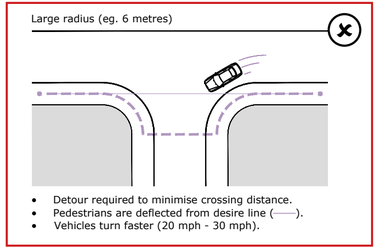
Like this:

Small radius (e.g. 1 metre) ensures that pedestrians do not have to look further behind them to check for turning vehicles



Not like this:

Large radius (e.g. 6 metres) means that a detour is required to minimise crossing distance



Not like this:

Large radius (e.g. 6 metres) means that vehicles turn faster

Rule UH.2c - Pedestrian and cycle crossings

Crossings MUST be provided to connect pedestrian and cycle routes and facilities across carriageways at junctions and along the streets linking them.

Why is this important?

Crossings are essential components of pedestrian and cycle networks, providing safe, comfortable and inclusive connectivity across carriageways. They can also be an important part of the street-scene, providing access to key places and a focus for activity.

It is important that crossings are provided at junctions, where pedestrian and cycle routes meet, and along the streets linking between them ('stand-alone' crossings).

Instructions

General:

- Crossings MUST follow the core design principles of being Coherent, Direct, Safe and Comfortable (see Rule UH.1).
- Crossings MUST meet the needs of all users, with flush kerbs, gentle gradients and the appropriate tactile paving (see Rule RS.1).
- Crossings MUST be placed on, or as near as possible to, desire lines, as well as at regular intervals along links. Pedestrian guardrail MUST NOT be used to force people to walk or cycle out of their way to cross carriageways.
- Surface level crossings are preferred as they are more direct, comfortable and inclusive than grade separated facilities. Footbridges and subways should be avoided unless local topography or other conditions make them unavoidable.
- Pedestrians and cyclists MUST NOT share space at crossings as this is a form of shared use (see Rule UH.4). Where signalised crossings are used they should make separate provision for people walking, wheeling and cycling. Parallel crossings are a form of priority crossing that meets this requirement. Toucan crossings should only be used to connect any areas of shared use.
- To maximise directness in distance and time, zebra and parallel crossings are preferred over signalised crossings where controlled crossings are needed, as they create no delay to pedestrians and cyclists. Where signal crossings are provided they should minimise the time and distance required to cross, including the use of on-crossing detectors to extend pedestrian greens and pre-timed maximums. Direct and single-stage crossings are preferred over complex multi-stage and staggered crossings. Staggered crossings MUST not be used for cycle crossings (see LTN 1/20 Table 10.1).
- There MUST be appropriate visibility between drivers and people waiting to cross. Visibility should not be obscured or restricted by features such as parked vehicles, trees or street furniture (see PA. 1).
- Crossings, at both junctions and on links, may be raised to slow traffic speeds locally but less engineered ways of achieving slow speeds are preferred (see Rule RS.2). Contrasting carriageway surfacing may be used to highlight the presence of the crossing, subject to compliance with the Staffordshire Highways Base Specification (see Rule LS.1).
- The maximum and minimum widths of controlled crossings (measured in the direction of people crossing) are set in Regulations. Where a contrasting material is used to indicate informal crossings the minimum width should be 3.0m. Widths exceeding minima should be used where high volumes of pedestrians are likely.
- Refuges or medians should be provided at crossings as they enable pedestrians and cyclists to cross in two stages and minimise exposure to motor traffic. At priority and informal crossings they also mean that people only have to look in one direction before crossing. The carriageway width at refuges MUST not be in the range 3.2m to 3.9m to avoid on-carriageway cyclists being placed in danger (see Rule UH.3).
- The minimum lengths (measured in the direction of people crossing) of refuges and medians are:

Pedestrian crossings:
- Absolute minimum 1.5m
- Desirable minimum 2.0m

Cycle crossings:
- Absolute minimum 3.0m

Crossings at Junctions:
- Controlled pedestrian crossings MUST be provided on all arms of signal-controlled junctions and roundabouts, unless there is no pedestrian provision to link to.
- Controlled cycle crossings MUST be provided where required to connect off-carriageway cycle tracks at signal-controlled junctions and roundabouts in accordance with LTN 1.20 Figure 10-2.
- Pedestrians MUST be given informal priority across minor side roads through the use of Continuous Footways (see Rule UH.2a) or small corner radii (see Rule UH.2b).
- Cycle tracks MUST be given priority over minor side roads, following guidance in Section 10.05 of LTN 1/20.

Stand-alone crossings

Pedestrians:
- Crossings MUST be provided on desire lines, typically where lateral pedestrian routes meet the street, including when pedestrians approach a main street from a minor side street.
- On-streets carrying over >8000 vpd - controlled crossings MUST be provided at spacings of:
  - Absolute maximum 400m
  - Desirable maximum 200m and
  - Desirable maximum 100m where there are higher levels of pedestrian activity, e.g. along mixed use streets.
- On-streets carrying <8000 vpd opportunities to cross, with flush kerbs and tactile paving as a minimum, MUST be provided at an absolute maximum spacing of 100m.

Exceptions Permitted

None.

Speed Limit	Total traffic flow to be crossed (pcu)	Maximum number of lanes to be crossed in one movement	Uncontrolled	Cycle Priority	Parallel	Signal	Grade separated
≥ 60mph	Any	Any					
40 mph and 50 mph	> 10000	Any					
	6000 to 10000	2 or more					
	0-6000	2					
	0-10000	1					
< 30mph	> 8000	> 2					
	> 8000	2					
	4000-8000	2					
	0-4000	2					
	0-4000	1					

Provision suitable for most people

Provision not suitable for all people and will exclude some potential users and/or have safety concerns

Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:
1. If the actual 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow

Fig 13. Crossing design suitability - extract from LTN 1/20 (Table 10.2)

Rule UH.3 - Cycling Comfort

Streets MUST be comfortable and safe for cycling, including cycle tracks or cycle lanes where traffic flows and speeds exceed limits for sharing the carriageway with motor traffic.

Why is this important?

Local Transport Note 1/20 states that motor traffic is the main deterrent to cycling for many people with 62% of UK adults feeling that the roads are too unsafe for them to cycle on.

The need to provide protected space for cycling on highways generally depends on the speed and volume of motor traffic. For example, in quiet residential streets, most people will be comfortable cycling on the carriageway even though they will be passed by the occasional car moving at low speeds.

On busier and faster highways, most people will not be prepared to cycle on the carriageway, so they will not cycle at all, or some may unlawfully use the footway.

Instructions

New developments MUST provide protection for cycling where traffic flows exceed 6,000 PCU per day (based on a 20mph speed limit / design speed) in line with LTN 1/20 Figure 4.1.

Figure 4.1 summarises the traffic conditions when protected space for cycling (fully kerbed cycle tracks, stepped cycle tracks and light segregation), marked cycle lanes without physical features and cycling in mixed traffic are appropriate.

Where cycling in mixed traffic is appropriate carriageway lane widths of between 3.2m and 3.9m MUST not be used. See LTN 1/20 paragraph 7.2.5.

More detail on the design of these types of cycle infrastructure is given in Chapters 6 and 7. Figure 4.1 shows that:

- Protected space for cycling will enable most people to cycle, regardless of the volume of motor traffic, although stepped cycle tracks and light segregation are not generally considered suitable for roads with speed limits above 40mph in urban areas. Stepped cycle tracks and light segregation may be appropriate on some suburban and interurban roads with 40mph speed limits where HGV traffic is limited and traffic flows are less than 6,000 PCU per day.
- Achieving low volumes and speeds of motor traffic can create acceptable conditions for on-carriageway cycling in mixed traffic and should always be considered as it delivers other safety and environmental benefits to streets. This is often the only feasible approach on narrow roads lined by buildings.
- Cycle lanes on the carriageway can be appropriate on less busy roads with lower speed limits, but do not provide any physical protection from motor vehicles and so do not adequately meet the needs of most people on busier and faster roads.

Exceptions Permitted

None.



Speed Limit[1]	Motor Traffic Flow (pcu/24 hour)[2]	Protected Space for Cycling			Cycle Lane (mandatory/ advisory)	Mixed Traffic
		Fully Kerbed Cycle Track	Stepped Cycle Track	Light Segregation		
20 mph[3]	0					
	2000					
	4000					
	6000+					
30 mph	0					
	2000					
	4000					
	6000+					
40 mph	Any					
50+ mph	Any					

Provision suitable for most people

Provision not suitable for all people and will exclude some potential users and/or have safety concerns

Provision suitable for few people and will exclude most potential users and/or have safety concerns

Notes:
1. If the 85th percentile speed is more than 10% above the speed limit the next highest speed limit should be applied
2. The recommended provision assumes that the peak hour motor traffic flow is no more than 10% of the 24 hour flow
3. In rural areas achieving speeds of 20mph may be difficult, and so shared routes with speeds of up to 30mph will be generally acceptable with motor vehicle flows of up to 1,000 pcu per day

Fig 14. Appropriate protection from motor traffic on highways - extract from LTN 1/20 (Figure 4.1)



Like this:

Segregated routes for cycling where traffic flows exceed 6,000 PCU per day



Not like this:

Shared use routes are not acceptable

Rule UH.4 - Shared Use

Shared use footway/cycle tracks MUST NOT be provided.

Why is this important?

Shared use is defined as a route or surface, away from the carriageway, which is available for use by both pedestrians and cyclists.

Although there are few recorded collisions between pedestrians and cyclists on shared use paths, the fact that the two user groups travel at different speeds and sometimes in different directions, affects the level of comfort of both groups. It is a particular concern for visually impaired people.

Cycles MUST therefore be treated as vehicles and not as pedestrians. On urban streets, cyclists must be physically separated from pedestrians and should not share space with them.

Instructions

- Along streets where the speed and volume of motor traffic exceeds the values given in the green cells of Table 4.1 of LTN 1/20 (see Rule UH.3) for mixed traffic and cycle lanes, protected space for cycling MUST be provided which is separate from the footway.
- This cycling infrastructure MUST be designed in accordance with LTN 1/20.



Exceptions Permitted

In situations where few pedestrians are expected, for example in rural areas, or along short sections of off-carriageway connecting path where cycling speeds will be low, shared use may exceptionally be used.

Shared use may also be appropriate at crossing points and to gain access to local facilities.

Any shared use facility must still be designed to meet the needs of cycle traffic – including its width, alignment and treatment at side roads and other junctions. The concept should be of a cycle track that pedestrians may use, rather than a footpath that cyclists may use.



Like this:
Segregated cycle routes should be provided in line with LTN 1/20



Not like this:
Shared use routes must not be used



Not like this:
Shared use routes must not be used

Rule UH.5a - Public transport accessibility

All parts of developments MUST be within easy reach of public transport.

Why is this important?

Easy access to high-quality public transport – typically the bus in Staffordshire - is an essential part of an integrated approach to sustainable urban transport and spatial planning and contributes to maximising the potential of new urban developments.

Where a development is in the vicinity of a railway station the layout of the site should be designed to maximise its accessibility by foot and cycle.

Demand Responsive Transport services will not provide the level of public transport quality needed to attract people away from using cars and will not normally be acceptable provision in new developments, except in very rural areas.

Bus services are important to urban areas because:

- Buses enable people to be moved along a road more efficiently than private cars, reducing carbon emissions and congestion.
- Buses enable people who either do not have a car or who do not wish to use one to travel farther than they can walk or cycle, with benefits to social equality.
- Buses contribute to healthier lifestyles because of people walking (or cycling) to and from bus stops.

Developments MUST provide access to public transport services, whether this is through enabling people to walk to stops on existing routes, by re-routing services or by providing new ones.

Instructions

New developments and regeneration schemes MUST be located where they can be served by extensions to existing bus services or where new services can provide direct and fast routes to important destinations such as town centres and public transport interchanges.

Street networks should be planned to allow direct and fast bus services that are both efficient for the operator and attractive to passengers. Tortuous routes and long loops should be avoided. Preferential routing should be considered, which enables the distance by bus to be shorter than the equivalent journey by car. This will increase relative bus journey speeds and thus the attraction of choosing the bus over the car. It can be achieved through traffic management techniques such as bus (and cycle) – only sections of streets or bus gates.

Bus only sections and bus gates may be appropriate for connecting the development into the existing adjacent settlement to provide a direct and shorter connection for the bus services and give buses an advantage over private vehicles. Bus gates MUST be useable by pedestrians and cyclists.

Consideration should be given to ensuring the route is attractive for operators to serve for the long-term sustainability of a bus service. Large developments should consult with SCC to determine if a timing point is required that will provide space off the highway for buses to wait e.g. lay-by.

When designing streets to accommodate buses:

- They should be direct and without severe curves or frequent turns to minimise operating distances and times.
- Provide a minimum carriageway width of 6.2m clear of parked cars.
- Where minimum widths are used the design MUST ensure that wing mirrors do not overhang pedestrian and/or cycle space.
- Greater widths will be required on bends to accommodate vehicle swept paths.
- Straight alignments will avoid the need for carriageway widening. They also help attract demand because they afford good visibility of buses approaching and make for a more comfortable and safer passenger riding experience.

Further detailed guidance on the planning and design of bus services in new developments is given in:

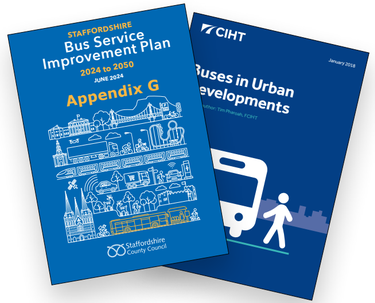
- Bus Infrastructure & Information in Staffordshire - A Design Guide
- Bus Services and New Residential Developments (Stagecoach, 2017
- Buses in Urban Developments (CIHT, 2018)

Exceptions Permitted

Narrower carriageways may be acceptable on one-way sections of bus route or for short lengths of street on two-way routes where two buses will only meet infrequently.

	Geometric Parameters
Minimum carriageway width	6.2m clear of parked cars
Where minimum widths are used	Wing mirrors must not overhang pedestrian and / or cycle space
Bends	Greater widths will be required on bends to accommodate vehicle swept paths
Straight alignments	Will avoid the need for carriageway widening

Fig 15. Summary of bus design geometric parameters





Like this:
Buses have been planned in from the outset



Like this:
Buses have been planned in from the outset



Like this:
Buses have been planned in from the outset

Rule UH.5b - Bus stops

Well designed and located bus stops MUST be provided to enable people to access bus services.

Why is this important?

Bus stops are the means by which people access bus services and are an essential part of the system. They need to be easily accessible and provide a safe and comfortable place to wait to maximise the attractiveness of public transport. They are also an important component of the street scene, creating - and taking advantage of - places where people gather. Bus stops need to be designed so that buses can access them efficiently and safely.

Instructions

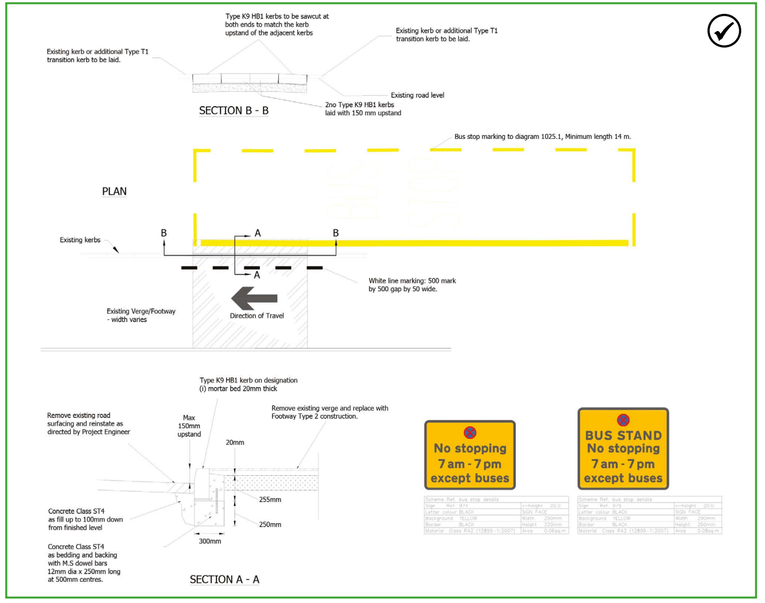
- Bus stops should normally be sited within a 400m maximum walking distance of all parts of a development. However, there will be circumstances where achieving this standard results in an inefficient and contrived bus route undermining its potential effectiveness. When planning the routes and stops it is important to consider the time and accessibility aspects of the whole passenger journey, not just the journey on the bus itself.
- If a bus layby is required this will be directed by SCC.
- Public transport stops and related pedestrian desire lines MUST be considered together. Bus stops MUST be accessible by all people along direct, safe and comfortable routes. They should be high-quality places that are safe and comfortable to use. Consideration should be given to providing secure cycle parking at important bus stops with significant catchment areas
- Public transport stops and related pedestrian desire lines MUST be considered together. Bus stops MUST be accessible by all people along direct, safe and comfortable routes, preferably where walking routes converge, enabling easy access throughout their immediate area, including suitable crossings (see Rule UH.2c).
- Bus stops should normally be sited within a 400m maximum walking distance of all building entrances across a development. However, there will be circumstances where achieving this standard results in an inefficient and contrived bus route undermining its potential effectiveness. When planning routes and stops it is important to consider the time and accessibility aspects of the whole passenger journey, not just the time spent on the bus itself.
- Bus stops MUST be high quality places that are safe and comfortable to use. They should not be located in isolated areas as this may cause concerns with regard to personal security and perceived safety. Bus stops MUST be lit, usually by a standard street lighting column and facilitate the incorporation of Real Time Passenger Information in accordance with SCC requirements. Flags and bus shelters with seating MUST be provided unless directed by SCC that a shelter is not necessary - the SCC preferred standard shelter is a three-bay, fully enclosed shelter which can be adapted in various ways to suit local needs. A kerb height of 150mm MUST be used at the boarding/alighting point to enable easy, level passenger access.
- Where segregated cycle infrastructure is provided it MUST be continued through bus stops in a bus stop bypass arrangement, in accordance with Figure 6.30 of LTN 1/20. Consideration should be given to providing secure cycle parking at important bus stops with catchment areas at a rate of 1 stand per 200 daily users (see Rule PA.3).
- Bus stops should normally be located in pairs (except where a road is likely to only ever be served by a unidirectional or circular service) so that people board and alight from approximately the same location. They should be located on straight sections of carriageway to enable buses to be able to align parallel to the kerb to afford easy access to the vehicle. It is highly desirable for the 'offside' stop to be approached about 30m before the nearside stop, in a 'tail to tail' configuration. Bus stops should not be placed within 15m of a side street to avoid hindering junction visibility. Bus lay-bys should not be provided where the speed limit is 30mph or less.
- Bus stops MUST be protected from inconsiderate parking, normally by providing 'bus cage' markings. The standard marking is 23m long by 3m wide comprising 18m for entry and straightening plus an exit area of at least 5m. Where on-carriageway parking is permitted directly on the exit from a bus stop, the exit area should be extended by up to 9m. Where there is conflict with driveways, the absolute minimum for entry and straightening can be shortened to no less than 14m

Exceptions Permitted

None.

	Geometric Parameters
Bus stop location	400m maximum walking distance of all parts of a development
Bus stop bypasses	Bus stop bypass arrangement, in accordance with Figure 6.30 of LTN 1/20
Bus stop configuration	It is highly desirable for the 'offside' stop to be approached about 30m before the nearside stop, in a 'tail to tail' configuration.
Bus stop siting	Bus stops should not be placed within 15m of a side street to avoid hindering junction visibility.

Fig 16. Summary of bus stop parameters



Like this:
Standard Bus Stop Detail – Residential Areas

Functionality

Rule FN.1 - Design Manual for Roads and Bridges (DMRB)

Design Manual for Roads and Bridges (DMRB) standards MUST not be used unless expressly directed by the highway authority and then to the extent set out.

Why is this important?

The Design Manual for Roads and Bridges (DMRB) is a suite of documents which contains requirements and advice relating to works on motorway and all-purpose trunk roads in the UK. The application of these requirements to other roads is at the direction of Staffordshire County Council, who will decide on the extent to which the requirements are appropriate in any given situation.

DMRB standards MUST only be applied to the road network outside towns and villages. When a strategic road is within a town or village boundary, DMRB should only be used as directed by Staffordshire County Council.

Instructions

Manual for Streets 2 (MfS2) builds on the guidance contained in Manual for Streets (MfS), advising how and where its key principles can be applied to busier streets and roads, thus helping to fill the perceived gap in design guidance between MfS1 and DMRB. The table below is taken from MfS2 and shows how the key areas of advice in MfS can be applied to higher speed roads.

Where a development includes the provision of or changes to a strategic road the developer should agree with Staffordshire County Council which elements of DMRB should apply and where variations from the requirements may be made.

When a settlement expands, and development takes place off a road designed to DMRB so that in future it becomes part of the urban area, this road must be upgraded from a DMRB road to a street in line with the principles in this guide, Manual for Streets and Manual for Streets 2.

Exceptions Permitted

The only exception to this should be industrial or large-scale commercial developments, such as warehouses, where it can be shown that streets are limited to movement functions only.

Consideration must still be given to sustainable transport modes in such places, including appropriate pedestrian and cycle infrastructure and public transport provision.

Application of key areas of MfS advice

Speed limit	20mph	30mph	40mph	50mph
User hierarchy	●	●	●	●
Team working	●	●	●	●
Community function	●	●	●	◉
Pedestrian / cycle support	●	●	●	●
Masterplans / design codes	●	●	●	●
Stopping sight distance	●	●	◉	◉
Frontage access	●	●	●	◉
Minimise signs and street furniture	●	●	●	●
Quality audits	●	●	●	●
Connectivity / permeability	●	●	●	◉

● Yes

◉ Subject to local context



Fig 17. Application of key areas of Manual for Streets advice

Rule FN.2 - Balancing movement and place functions

The design of streets MUST reflect their relative importance in the network for each mode of travel, as well as their place function.

Why is this important?

It is not always the case that streets have the same level of importance for different modes. For example, a bus route may use a street that only carries local traffic to reach a bus gate, and a street that only provides access to a few properties may be an important walking and cycling connection to the site.

Streets MUST therefore be designed to suit the needs of the demands of each mode, as well as any important place functions they need to meet (see Rule PR.1).

Instructions

Designers will need to consider the width requirements of each mode, whether it is acceptable for modes to share the same space and the function of the street in place terms.

Width requirements

Walking:
- 2m minimum.
- Additional width should be provided between the footway and a heavily used carriageway, or adjacent to gathering places, such as schools and shops.
- Further guidance on minimum footway widths is given in Inclusive Mobility.

Cycling:
- One way: 2m desirable minimum, 1.5m absolute minimum.
- Two way: 3-4m desirable minimum, 2-3m absolute minimum, depending on flow (see LTN 1/20).
- Shared Use: 3-4.5m desirable minimum, depending on flow (see LTN 1/20).

Bus Routes:
- Two way routes: 6.2 m minimum carriageway width, subject to tracking on bends

General Traffic:
- Principal streets carrying significant large vehicle flows – 6.2m minimum*
- Streets carrying mainly light vehicles – 4.8m minimum*

*width clear of parked cars

Sharing between modes:
- Requirements for Shared Routes are given in the table below.

Place Function:
- Requirements for the design of streets as places are given in Rule PR.1.

Exceptions Permitted

In lightly-trafficked streets, carriageways may be varied and narrowed over short lengths to a single lane to create interest and as a traffic-calming feature.

Requirements for Shared Routes

Shared Route type	Walking	Cycling	Bus Route	General Motor Traffic	Notes
Shared Surface Street / Mews Street /Home Zone	T	A	N	A	See Manual for Streets 7.2.8
Shared Use Path	A	A	N	N	As an exception – see Rule UH.4
Cycle Street (carriageway)	N	T	N	A	Separate footway provided. See LTN 1/20 14.3.25, Wales ATDG 11.10

T - Through Route
A – Access to Properties only
N – Not Permitted

Fig 18. Requirements for shared routes



Like this:
Example of shared street / mews street / home zone illustrating protected on-street car parking space and street tree creating traffic calming feature



Like this:
Example of cycle street - design indicates that cyclist have priority

Rule FN.3 - Capacity

Street networks MUST provide sufficient capacity to accommodate the anticipated demand from each mode of travel.

Why is this important?

It is important that street networks enable the forecast passage of all types of traffic (including pedestrian and cycle traffic). Congestion causes frustration, leads to increased air pollution and the risk of collisions and casualties.

Instructions

The capacity of urban street networks is normally determined by the junctions, although there may be situations (e.g. footways around schools) where the capacity of the links is critical.

Transport Assessments MUST include appropriate demand forecasts and capacity analyses of important junctions to establish that sufficient capacity for all users has been provided.

However, it is important that the TA does not overestimate motor traffic travel demands, which could make it difficult to provide well-designed walking and cycle infrastructure, particularly at the site access points.

In line with the NPPF (December 2024) in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;
- b) safe and suitable access to the site can be achieved for all users;
- c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
- d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach.

Exceptions Permitted

None.



Like this:
Site access junction design with well integrated pedestrian and cycle facilities



Like this:
Site access junction design with well integrated pedestrian and cycle facilities



Not like this:
Site access junction design with poorly integrated pedestrian facilities

Access to Premises

Rule AC.1 - Access to Premises

Streets MUST provide direct and legible access to properties without creating danger and inconvenience to street users.

Why is this important?

Providing direct access to properties, by all modes, is one of the distinguishing aspects of streets. Having frontages that are directly accessible from the street is highly desirable in most circumstances as this helps to ensure that streets are lively and active places.

Places where buildings and public spaces have no connection with the street feel less welcoming and safe. 'Local distributor roads' bounded by rear or side fences are associated with higher traffic speeds.

Instructions

Streets with direct access and formed into perimeter blocks should form the basis of new street and development layouts.

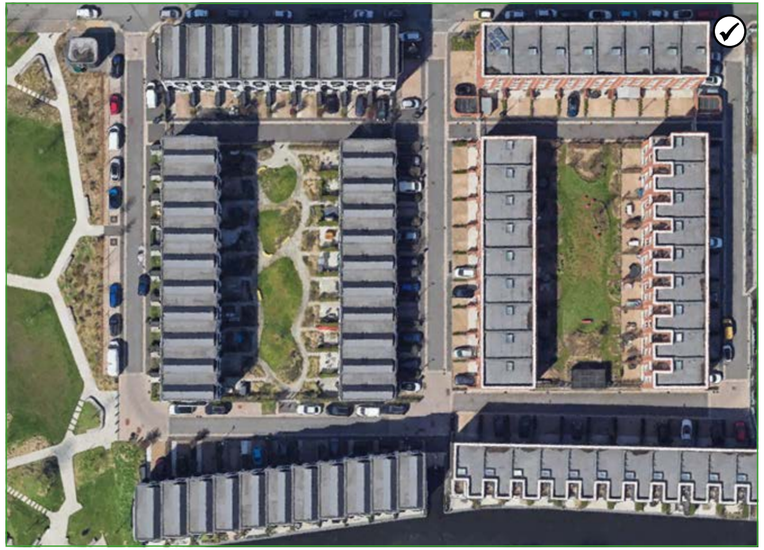
The requirement to provide direct access from streets means that the perimeter block is usually an effective structure for new neighbourhoods. A block structure works well in terms of providing direct access from convenient, populated and overlooked streets. In addition, it makes efficient use of land, offers opportunities for enclosed private or communal gardens, and is a tried and tested way of creating quality places.

The relationship between frontage access and on-street car parking must be considered to ensure that sufficient opportunities for shared unallocated on-street car parking is provided. See Rule PA.1 for further information.

Access to the rear of dwellings from public spaces, including alleys and rear parking courts should be avoided.

Exceptions Permitted

None.



Like this:
Streets with direct access and formed into perimeter blocks should form the basis of new street and development layouts.



Like this:
Direct access to properties from the street



Not like this:
Rear boundaries to streets provides a poor public realm

Rule AC.2 - Direct Access

Direct access to dwellings for motor vehicles should be provided where streets carry up to 10,000 vpd.

Why is this important?

The relationship between traffic flow and road safety for streets with direct frontage access was researched for MfS. Data on recorded accidents and traffic flow for a total of 20 sites were obtained. All of the sites were similar in terms of land use (continuous houses with driveways), speed limit (30 mph) and geometry (single-carriageway roads with limited sideroad junctions). Traffic flows at the sites varied from some 600 vehicles per day to some 23,000 vehicles per day, with an average traffic flow of some 4,000 vehicles per day.

It was found that very few accidents occurred involving vehicles turning into and out of driveways, even on heavily-trafficked roads.

The research indicated that a link carrying this volume of traffic, with characteristics similar to those studied, would experience around one driveway-related accident every five years per kilometre. Fewer accidents would be expected on links where the speed of traffic is limited to 20 mph or less, which should be the aim in residential areas .



Instructions

Direct access to dwellings is permitted on all streets with traffic flows of up to 10,000 vpd.

Exceptions Permitted

None.



Like this:
Direct driveway access provided on-streets up to 10,000 vpd



Like this:
Direct driveway access provided on-streets up to 10,000 vpd



Not like this:
Private driveways parallel to main streets with no permeability for pedestrians and cyclists

Rule AC.3 - Emergency Vehicle Access

Street networks MUST enable fire appliances and other emergency vehicles to access all parts of the development and carry out their operations.

Why is this important?

Access for emergency vehicles is critical in allowing prompt arrival of responders in the event of an emergency. By considering the needs of fire tenders (including the space around them for operation), the needs of other vehicles such as ambulances and police vehicles will also be accommodated.

Developments should have adequate provision for car parking, as inappropriately parked cars can have a significant impact on response times for emergency vehicles (see PA.1). Connected networks also provide resilience and ensure an alternative route is available should a section be blocked. Turning heads MUST be constructed to accommodate the turning circle of a fire tender.

Instructions

The Building Regulation requirement B5 (2000) concerns 'Access and Facilities for the Fire Service'. Section 17, 'Vehicle Access', includes the following advice on access from the highway:



- There should be a minimum carriageway width of 3.7m between kerbs.
- There should be vehicle access for a pump appliance within 45m of single family houses.
- There should be vehicle access for a pump appliance within 45m of every dwelling entrance for flats/maisonettes.
- A vehicle access route may be a road or other route.
- Fire service vehicles should not have to reverse more than 20m.

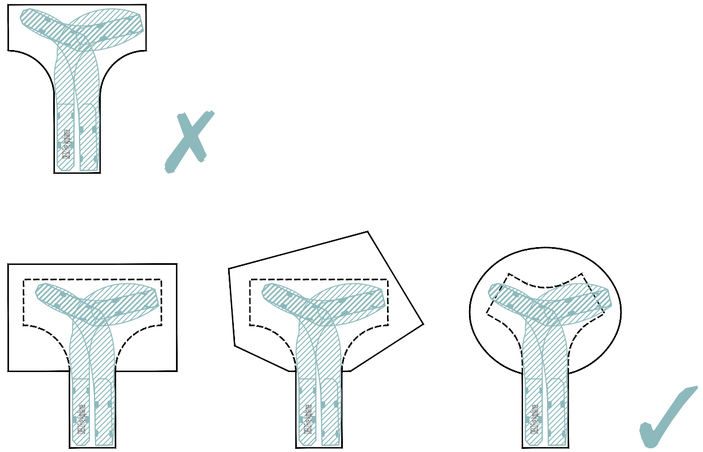
As set out in MfS, The Association of Chief Fire Officers has expanded upon and clarified these requirements as follows:

- A 3.7m carriageway (kerb to kerb) is required for operating space at the scene of a fire. Simply to reach a fire, the access route could be reduced to 2.75m over short distances, provided the pump appliance can get to within 45m of dwelling entrances.
- If an authority or developer wishes to reduce the running carriageway width to below 3.7m, they should consult the local Fire Safety Officer.
- The length of cul-de-sacs or the number of dwellings have been used by local authorities as criteria for limiting the size of a development served by a single access route. Authorities have often argued that the larger the site, the more likely it is that a single access could be blocked for whatever reason. The fire services adopt a less numbers-driven approach and consider each application based on a risk assessment for the site, and response time requirements. Since the introduction of the Fire and Rescue Services Act 2004 all regions have had to produce an Integrated Management Plan setting out response time targets . These targets depend on the time required to get fire appliances to a particular area, together with the ease of movement within it. It is therefore possible that a layout acceptable to the Fire and Rescue Service (FRS) in one area, might be objected to in a more remote location.
- Parked cars can have a significant influence on response times. Developments should have adequate and well designed provision for parking to reduce its impact on response times.
- Residential sprinkler systems are highly regarded by the FRS and their presence allows a longer response time to be used. A site layout which has been rejected on the grounds of accessibility for fire appliances may become acceptable if its buildings are equipped with these systems.

Exceptions Permitted

None.

Turning spaces and usable turning heads
Fire tender swept path analysis:



Like this:
Turning spaces and useable turning heads showing fire tender swept path anaylsis



Like this:
Turning spaces designed as usable space



Not like this:
Poorly designed turning heads being used for informal parking

Servicing

Rule SE.1 - Refuse Vehicle Access

Refuse collection and other service vehicles MUST be able to reach identified collection and delivery points within the site. On-streets carrying less than 5000 vpd large vehicles may use the whole carriageway when turning and manoeuvring.

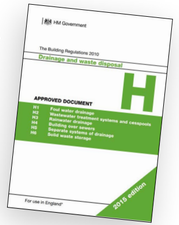
Why is this important?

Ensuring appropriate opportunities for waste storage and collection is a key factor in designing buildings, site layouts, and individual streets.

Storage may be complicated by the need to provide separate facilities for refuse and the various categories of recyclable waste. Quality of place will be significantly affected by the type of waste collection and management systems used, because they in turn determine the sort of vehicles that will need to gain access .

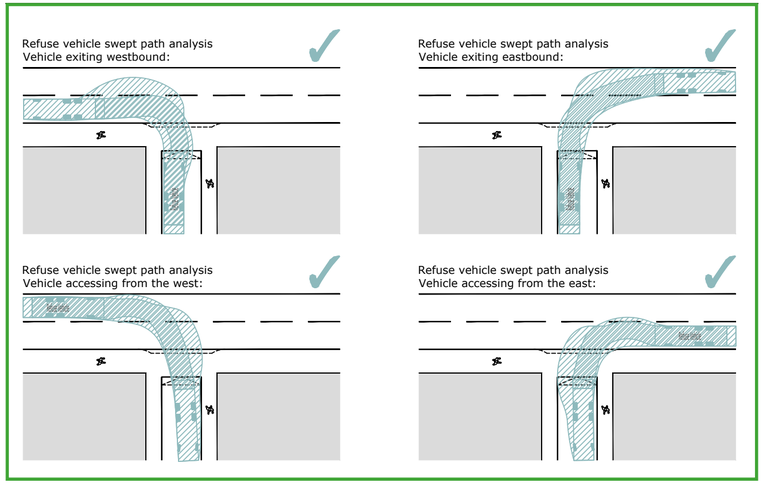
Instructions

- Routing for waste vehicles should be determined at the concept masterplan or scheme design stage.
- Wherever possible, routing should be configured so that the refuse collection can be made without the need for the vehicle having to reverse, as turning heads may be obstructed by parked vehicles and reversing refuse vehicles create a risk to other street users .
- Where it is necessary to provide for three-point turns (e.g. in a cul-de-sac), a tracking assessment should be made to indicate the types of vehicles that may be making this manoeuvre and how they can be accommodated. The turning space provided should relate to its environment, not specifically to vehicle movement (see MfS Fig. 7.24), as this can result in a space with no use other than for turning vehicles. To be effective and usable, the turning head must be kept clear of parked vehicles. Therefore it is essential that adequate parking is provided for residents in suitable locations.
- On-streets carrying less than 5000 vpd large vehicles may use the whole carriageway when turning and manoeuvring.
- Building Regulations Part H is a set of guidelines for drainage and waste disposal in buildings. Key points in Approved Document Part H are:
  - Storage areas for waste containers and chutes should be sited so that the distance householders are required to carry refuse does not usually exceed 30m (excluding any vertical distance).
  - Containers should be within 25m of the waste collection point specified by the waste collection authority.
  - For waste collection containers up to 250 litres, steps should be avoided between the container store and collection point wherever possible and should not exceed 3 in number.
  - Slope should not exceed 1:12. Exceptionally this may be exceeded provided that the lengths are not excessive, and it is not part of a series of slopes.
  - Unsightly bins can damage the visual amenity of an area and contribute to increased levels of anti-social nuisance such as odour and litter, so bin storage should be planned carefully. Where the location for storage is in a publicly accessible area or an open area around a building (e.g. in a front garden) an enclosure or shelter should be considered.



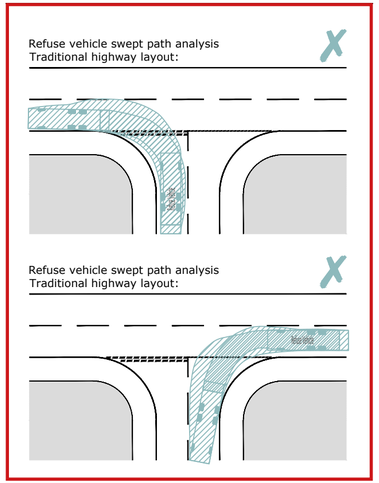
Exceptions Permitted

None.



Like this:

Large vehicles may use the width of the street on-streets carrying less than 5000 vpd



Not like this:

On-streets carrying less than 5000 vpd large vehicles tracking does not need to be designed to stay on one side of the street

Parking

Rule PA.1 - On-street car parking

Where on-street car parking is permitted streets MUST be designed to minimise the likelihood that vehicles will be parked on footways.

Why is this important?

Car parking is a key function of many streets, although it is not always a requirement.

A well-designed arrangement of on-street car parking provides convenient access to frontages and can add to the vitality of a street. Conversely, poorly designed car parking can create safety problems, result in pavement parking, and reduce the visual quality of a street.

Well-designed parking layouts can help reduce congestion by providing sufficient parking spaces that are strategically located, minimising the likelihood of illegal parking and traffic disruptions.

Space to Park: Welcome to Space to Park provides an online resource of best practice for those seeking parking solutions in new build residential development.

Instructions

Parking standards within Staffordshire are set by the local planning authority and not the County Council. For further information please refer to the relevant local guidance.

The design of on-street parking MUST consider the following:

- On-street parking in adopted streets must be unallocated, and where parallel parking is provided individual bays should not be marked. This is a flexible and spatially efficient approach that reduces the overall need for spaces.
- Parking should be fronted and overlooked by the built form, and a minimum 2m margin should be provided around all spaces.
- Spaces should be broken up into groups of no more than four spaces, ideally separated by kerb build-outs that can incorporate trees, greenery, SuDS, EV chargers, cycle parking and street lighting to minimize the visual dominance of the cars. Alternatively, tree pits can be constructed directly on the carriageway to break up parking.
- Consideration should be given to the space required to open car doors and to access the boot when designing landscaping adjacent to parking spaces.
- Parking spaces should be separate from the carriageway and clearly delineated through landscaping or material differentiation. Parking spaces may be acomodated within shared surface streets but should be clearly defined.
- Additional spaces can be provided by using varying street widths and taking advantage of leftover space on masterplans.
- Nuisance parking, should be controlled through efficient street design, which leaves no left-over space, and the use of trees, greenery and street furniture. For example, using shrubs or low-level planting in verges to discourage parking, particularly on the footway.
- Care must be taken to ensure there are clear places for pedestrian crossings and access to pavements and cycleways are not blocked by parking spaces - see Rule UH.2c.
- On-street parking can be within visibility splays where traffic speeds and volumes are low, which should be most new streets, but should generally be avoided through design.
- Central reservation parking: Parking integrated within landscape strips, this may be particularly appropriate for high streets and avenues.

The design of any off-street parking should be made as convenient as possible to avoid creating excessive demand for on-street provision. Rear car parking courts, tandem driveways and enclosed garages are less likely to be used than other forms of car parking, but may be acceptable if on-street parking is well controlled.

Car clubs are supported by SCC as a means of promoting sustainable mobility, reducing vehicle emissions and dependency on the private car. Research shows that for every 1 car club space provided an average reduction of 18.5 private parking spaces can be achieved.

Exceptions Permitted

None.



Like this:
On-street car parking – Parallel parking spaces



Like this:
Unallocated on-street parking set within landscape



Like this:
On-street car parking – Parallel parking spaces

Rule PA.2 - EV Charging

Developments MUST accommodate EV charging. Staffordshire County Council will seek to ensure that connection points are installed in line with emerging technical requirements and open standards.

Why is this important?

EV charging is a rapidly developing technology, and all developments must be planned to accommodate EV charging. Staffordshire County Council will seek to ensure that connection points are installed in line with emerging technical requirements and open standards. This guidance acknowledges that technology will continue to develop.

This guidance applies to all new build (residential and commercial) development, and it is acknowledged that the retrofitting of EV chargers could require a more site-specific approach to design. This should be discussed with SCC on a case-by-case basis but should make best use of this guidance.



Instructions

Full details on the requirements for new residential and non residential dwellings is set out in Approved Document S of the Building Regulations.

Building Regulations Part S provides technical guidance regarding the installation and charge point requirements. Approved Document S applies to new residential and non-residential buildings; buildings undergoing a material change of use to dwellings; residential and non-residential buildings undergoing major renovation; and mixed-use buildings that are either new, or undergoing major renovation.

The following provisions should be made for EV chargers in developments in Staffordshire:

- For new housing developments with garages and off-street parking, each dwelling should have an on plot fast charge point, this should typically be wall mounted.
- For commercial developments 20% of unallocated parking bays should have an active charge point and an additional 20% of spaces should be provided with cabling and supply.
- Car club spaces should have one fast charging point per bay.

Location / siting of charging points:

- Charging points must be clearly demarcated for this use and positioned in line with on-street parking guidance.
- Charging points must be located to provide access to the maximum number of cars. A space is seen as chargeable if it is within 5m of a charge point.
- Charge points should be incorporated within kerb buildouts as to not reduce pavement width and can only be incorporated into bollards if they are placed on the edge of the pavement and carriageway.
- EV charging MUST be carefully located to prevent obstructions on the highway.
- EV chargers must be located on the pavement and be set back a minimum of 450mm from the kerb edge.
- For areas with high pedestrian footfall, chargers should be placed in a furniture zone.
- EV chargers should have front or side facing charging cables to avoid obstruction of pavement during charging.
- Below ground infrastructure should be consolidated into service ducts for ease of access and maintenance with a minimum 2m service margin.
- EV chargers in a conservation area will require consultation with the appropriate conservation officer.

Exceptions Permitted

None.



Like this:
On-street car parking – EV charging

Rule PA.3 - Cycle parking

Appropriate cycle parking provision MUST be integrated into all developments for residents, employees, visitors etc.

Why is this important?

Cycle parking is integral to any cycle network, and to wider transport systems incorporating public transport. The availability of convenient and secure cycle parking at home, the end of a trip or at an interchange point has a significant positive influence on cycle use.

Public cycle parking at destinations such as local shops may be provided within streets, normally in the form of Sheffield stands.

Space for cycle parking should be considered at the earliest possible stage of a scheme design or building development. The fear or direct experience of vandalism and theft deters cycling. This includes lack of convenient space to keep a bike in the home, which can be particularly problematic in apartments, and for disabled cyclists who need easy access for their cycle.

A proportion of people that experience cycle theft stop cycling altogether. Investment in new routes and infrastructure may not reach its full potential if the provision of good quality cycle parking is not considered at the planning and design stages. Cycle parking should cater for all types of cycle vehicle and all types of cycle user. Personal security within cycle parking areas may also be a concern if the parking is remote and not overlooked by adjacent buildings. Cycle parking, and routes to and from it, should be clearly marked, overlooked, well-maintained, well-lit and integrated into the built environment.

Instructions

Guidance on the planning and design of cycle parking in different contexts is given in Local Transport Note 1/20, Cycle Infrastructure Design.

- LTN 1/20 Table 11-1 suggests typical minimum cycle parking capacities for different classes of land use.
- Further details on appropriate cycle parking types and dimensions can be found in LTN 1/20 Section 11.4.

The Cycle Parking Guide for New Residential Developments, published by Cambridge City Council, provides further useful information.

Exceptions Permitted

None.



Land use type	Sub category	Short stay requirement (obvious, easily accessed and close to destination)	Long stay requirement (secure and ideally covered)
All	Parking for adapted cycles for disabled people	5% of total capacity co-located with disabled car parking.	5% of total capacity co-located with disabled car parking.
Retail	Small (<200m²)		1 per 100m²
	Medium (200-1,000m²)		1 per 200m²
	>1,000m²		1 per 500m²
Employment	Office/Finance (A2/B1)		1 per 200m²
	Industrial/Warehousing (B2/B8)		1 per 500m²
Leisure and Institutions	Leisure centres, assembly halls, hospitals and healthcare	Greatest of: 1 per 50m² or 1 per 30 seats/capacity	1 per 5 employees
	Educational Institutions	-	Separate provision for staff and students. Based on Travel Plan mode share targets, minimum: Staff: 1 per 20 staff Students; 1 per 10 students
Residential	All except sheltered/elderly housing or nursing homes	-	1 per bedroom
	Sheltered/elderly housing/ nursing homes	0.05 per residential unit	0.05 per bedroom
Public Transport Interchange	Standard stop	1 per 200 daily users	-
	Major interchange	1 per 200 daily users	-

Fig 19. Suggested minimum cycle parking capacity for different types of land use



Like this:

On-street cycle parking located adjacent to community facilties and within well designed landscape spaces



Not like this:

Cycle parking for apartments located without overlooking or security deters usage

Road Safety

Rule RS.1 - Inclusive Design

Streets MUST be designed so that they are safe and accessible for users of all ages and abilities, with appropriate materials, crossings, tactile paving, levels, widths and all other requirements to make them inclusive.

Why is this important?

Staffordshire County Council is responsible for ensuring that the design of their streets are inclusive and that they meet the requirements of the Equality Act 2010.

Staffordshire County Council must ensure that people with protected characteristics* are able to move around freely through the pedestrian environment, and use it to access other modes of transport.

Instructions

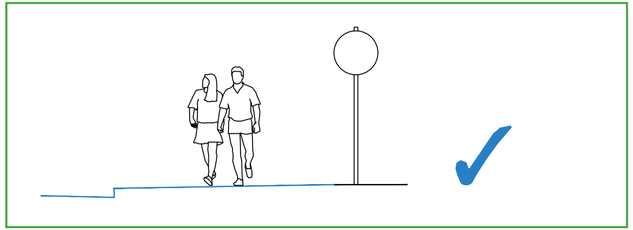
- Street design MUST be inclusive.
- Inclusive design means providing for all people regardless of age or ability. There is a general duty for public authorities to promote equality under the Equality Act 2010 and the Public Sector Equality Duty.
- All designs MUST follow the best practice advice set out in 'Inclusive Mobility: A guide to best practice of access to pedestrian and transport infrastructure' (2021).
- Appropriate tactile paving MUST be provided in accordance with 'Guidance on the Use of Tactile Paving Surfaces' (2021).
- All people MUST able to move around freely through the pedestrian environment, and use it to access other modes of transport. If using a cycle, whether as a mobility aid or not, they MUST be able to use inclusive cycle infrastructure (including quiet streets) to complete their journey.

Exceptions Permitted

None.

* (age, disability, gender reassignment, marriage or civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation).

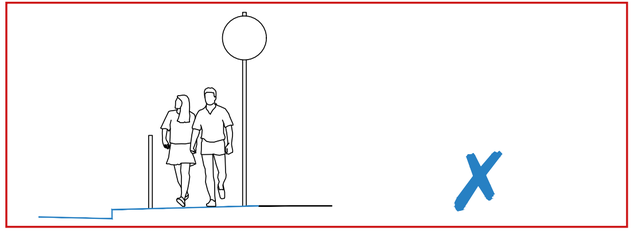




- Uncluttered footways with street furniture located in the verge where possible
- No pedestrian guardrails (unless required to protect against hazards such as steep slopes)
- Wider footway widths (width > 2m)
- Shallow footway gradients (gradient between 1:60 - 1:100)



Like this:
Level access provided on key desire lines



- Street furniture cluttering the footway
- Pedestrian guardrails adjacent to the carriageway
- Narrow footway widths (width < 2m)
- Steep footway gradients (gradient < 1:40)



Not like this:
Poor consideration for disabled users on key desire lines

Rule RS.2 - 20mph average speeds

Streets MUST be designed to achieve average speeds of no more than 20mph.

Why is this important?

Streets need to perform a variety of functions beyond the movement of traffic and are places where people live, congregate and move using a variety of transport modes. To ensure streets are a safe, inclusive and vibrant place, it is appropriate that they are designed to limit the speed of vehicular traffic to 20mph.

Instructions

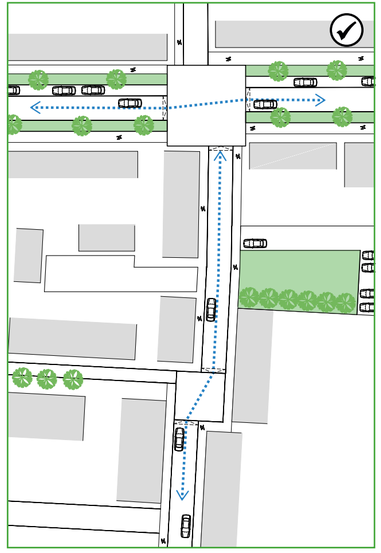
Street layouts MUST include design features which naturally limit speed to 20mph, for example:

- Minimising carriageway widths
- Edge treatments that visually narrow the carriageway
- Limiting forward visibility
- Keeping street sections short between junctions, sharp changes of direction or other features (around 70m maximum in line with paragraph 7.4.2 of Manual for Streets)
- Small corner radii / continuous footways (see UH.2)
- Omitting road centrelines
- Informal pedestrian crossings
- On-street parking (see PA.1)
- Level surfaces
- Engineered traffic calming may be used but it is preferable to control vehicle speeds naturally rather than having to rely on unsympathetic measures

Street layouts must not use sinuous curved alignments in an attempt to limit speeds as these are rarely effective and create layouts that are not conducive to encouraging walking, wheeling and cycling.

Exceptions Permitted

Where a development is required to incorporate a strategic highway link within the development, exemptions may be permitted, and a bespoke set of design parameters agreed with Highway Authority which is specific to the context and requirements of the development.



Like this:

Using staggered junctions to slow vehicle speeds and maintain a view point or vista.



Like this:

Using staggered junctions to slow vehicle speeds and maintain a view point or vista.



Like this:

Using staggered junctions to slow vehicle speeds and maintain a view point or vista.



Not like this:

Vertical traffic calming with no relationship to the place functions of a development.



Not like this:

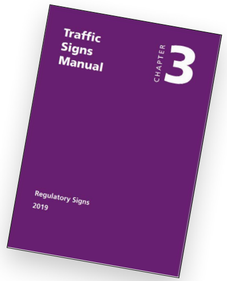
Horizontal traffic calming with no relationship to the place functions of a development.

Rule RS.3 - 20mph speed limits

Street networks within new residential developments MUST be subject to a 20mph speed limit.

Why is this important?

20mph speed limits have been shown to lead to lower traffic speeds, particularly when they have been applied consistently over wider neighbourhoods, even in the absence of features that limit speed (see Rule RS.2).



A 20mph speed limit on new street networks within residential areas will bring the posted speed limit in line with the design speed so that drivers are left with no uncertainty as to what speed they should be travelling at. This will help reinforce appropriate driver behaviour and make it less likely speeds will increase between individual design features.

Instructions

Developers should provide the necessary gateway and repeater signs in line with Traffic Signs Manual Chapter 3.

Street layouts must not use sinuous curved alignments in an attempt to limit speeds as these are rarely effective and create layouts that are not conducive to encouraging walking, wheeling and cycling.

Exceptions Permitted

30mph speed limits may be retained on principal bus routes where there are segregated facilities for pedestrians and cyclists, including regular controlled crossings - see Rule UH.2c



Like this:

20mph speed limits have been shown to lead to lower traffic speeds, particularly when they have been applied consistently over wider neighbourhoods

Rule RS.4 - Road safety audits

Road Safety Audits MAY BE required for works undertaken to the existing highway or atypical streets designs.

The developer MUST confirm with SCC if and where these are required.

Why is this important?

The independent audit of designs in accordance with GG119 is an established process for reviewing the safety of designs for trunk roads and major highways schemes and is often used and applied to local authority schemes. It is important that an independent audit is undertaken at the various stages of design and implementation to ensure a safe street network is delivered for all users.

Instructions

- Road Safety Audits MUST be undertaken by an independent auditor who is experienced in designing places for people to ensure that problems raised recognise the hierarchy and needs of all users of the street.
- Developers MUST pro-actively engage with the Highway Authority when reviewing problems raised at all stages of the Road Safety Audit process to reach an agreed action to address each problem which does not undermine the design principles of this code.

Audit Stages:

- **Stage 1 Audits** MAY BE required at Preliminary Design stage, where the key principles of the street design have been developed and are clearly presented.
- **Stage 2 Audits** MAY BE required on completion of the Detailed Design stage and ensure sufficient level of information is provided with regard to vertical street profiles and drainage to ensure vulnerable users needs have been fully considered.
- **Stage 3 Audits** MAY BE required on substantial completion of Construction, and preferably prior to opening to ensure any problems which could impact on user safety are identified and address prior to coming into use.
- **Stage 4 Audits** MAY BE required to be completed 12 months post opening to review any new problems which have been identified through use of the completed scheme. This should include a review of recorded accident data, formal stakeholder comments and any anecdotal feedback.

Exceptions Permitted

The Stage 4 Road Safety Audit may be omitted at the discretion of the Highway Authority if there has been no recorded accidents in the period.



Security

Rule ST.1 - Straight streets

Streets MUST be as straight as possible, without hiding places and overlooked to provide a sense of security for all users.

Why is this important?

Networks made up of straight or nearly straight streets are more efficient in the use of land and help to create legible places that are easy to find your way around and foster personal security.

They maximise connections within and between places and better serve the needs of pedestrians and cyclists who prefer direct routes because they are moving using their own energy. Direct streets on bus routes make for more efficient services by minimising travel distances and time.

The design of housing layouts can make a major contribution to the prevention of crime and anti-social behaviour and in alleviating the fear of crime.

The following factors are particularly influential:

- Crime depends on concealment - well used and overlooked streets will deter criminals.
- Anonymity provides opportunity for crime; there should be a clear definition of ownership and responsibility for all parts of a development, and defensible space around houses.

Instructions

Development layouts should be based on a network of straight or nearly straight streets. Layouts that use excessive or gratuitous curves should be avoided.

Long, straight streets can lead to higher speeds, which can be countered by the integration of calming features at regular intervals such as changes in priority (see Rule RS.2) and the application of 20mph speed limits (see Rule RS.3).

Crime reduction measures must be considered as an integral part of the overall design and moderated by the design concept for the whole residential environment. Normally this will lead designers to rely on natural surveillance and overlooking to act as a deterrent. This will impose fewest restrictions on the permeability of the development especially for pedestrians and cyclists; the public realm quality and opportunities for community development and interaction.

The starting point is an assessment of the potential risks and crime rates in the locality, in consultation with the Police Architectural Liaison Officer. Measures, which are considered necessary to deter crime in an area of particularly high risk, may be unjustifiable elsewhere. In the interests of maintaining the quality of the public realm and to increase the convenience of walking and cycling measures to exclude access by gating entrances or closing connecting routes should only be necessary in areas of particularly high crime risk.

- In most of Staffordshire, designs to deter crime should be based on natural surveillance; increasing pedestrian activity on the street, creating defensible space and clear and direct movement routes.
- Local Authorities have a responsibility under Section 17 of the Crime and Disorder Act to take account of the need to deter and prevent crime (particularly burglary and speeding) in exercising their functions including forward planning and development control. However, security considerations will not always take precedence; Planning Authorities will need to balance security considerations against other design objectives as described above.

- Security and crime deterrence will always be assisted if the following basic principles are adhered to in designing housing development:
  - Front gardens, the approach to front doors and car parking areas should be visible from neighbouring houses.
  - Long segregated footpaths should be avoided, where possible footpaths should follow the line of roads and be visible to road users. Any segregated footpaths should be well lit with visibility from end to end with no places where criminals can hide from view. Any intervening planting should be kept low to maximise natural surveillance.
  - Shared car parking areas or garage courts should be no larger than 15-20 parking spaces and visible from windows in the houses they serve.
  - All open spaces should be overlooked from the front of some houses and play areas for small children should also be within earshot of nearby houses.
  - Open spaces or segregated footpaths adjoining the rear gardens of houses should be avoided wherever possible.

Exceptions Permitted

Curved or irregular streets may be appropriate where it is necessary to respond to a particular constraint, to contribute a sense of place by following the local context, or there is a need to introduce some variation for the sake of interest.



Like this:
Straight or nearly straight streets



Like this:
Straight or nearly straight streets



Not like this:
Excessively winding streets



Not like this:
Excessively winding streets

Rule ST.2 - Active Frontage

Streets MUST be lined by active frontages to the maximum extent possible.

Why is this important?

Streets that are accessed and overlooked from buildings will be safer and feel more welcoming.

Instructions

- Streets MUST be designed with the backs and fronts of houses and other buildings being treated differently. The basic tenet is 'public fronts and private backs'. back gardens should adjoin other back gardens or a secure communal space. Front doors should open onto front gardens, small areas in front of the property, or directly onto streets.
- The desirability of public fronts and private backs applies equally to streets with higher levels of traffic, such as those linking or providing access to residential areas. If such streets are bounded by back-garden fences or hedges, security problems increase, drivers may be encouraged to speed, land is inefficiently used, and there is a lack of a sense of place.

Exceptions Permitted

None



Like this:
Active frontage to the street



Like this:
Lack of active frontage to streets



Not like this:
Lack of active frontage to streets

Rule ST.3 - Street Lighting

Street networks MUST be provided with street lighting unless otherwise directed by SCC.

Why is this important?

Street lighting contributes to:

- Reducing risks of night-time collisions.
- Assisting in the protection of property.
- Discouraging crime and vandalism.
- Making residents and street users feel secure.
- Enhancing the appearance of the area after dark.

Instructions

Lighting should be planned as an integral part of the design of the street layout, and in conjunction with the location and anticipated growth of planting.

A coordinated approach should be taken when determining the layout of new trees and streetlights, however the former must not be dictated by the latter. Reference should be made to the guidance in BS 5489 Code of practice for lighting of roads and public amenity on the subject of integrating lighting and landscaping

This may require coordination between SCC and the Local Planning Authority to ensure that similar standards of lighting are provided for the adopted highway and unadopted areas, such as car parking.

A lighting assessment MUST be provided to ensure that quality lighting is achieved. Areas adjacent to the proposed development need to be assessed to ensure that the lighting provision is in line with current requirements to ensure that lighting connectivity is established between the proposed development and other highway lighting (or similar).

Exceptions Permitted

New streets MUST be lit, unless otherwise directed by SCC.



Not like this:
Street lighting is obscured by trees and vegetation



Like this:
Street lighting co-ordinated with landscape within the street



Not like this:
Street lighting is obscured by trees and vegetation

Utilities

Rule UT.1 - Utilities requirements

Streets MUST integrate the requirements of utility providers without compromising the quality of place by obstruction of movement or visual intrusion.

Why is this important?

Integrating utilities well within the street network is important, as they can impact on user comfort, the quality of place and future maintenance. This is typically important with the introduction of an increased number of telecommunication and fibre providers who are able to supply new developments.

Making appropriate provision for utilities within the design, can influence the spatial layout of the street and the development so its important to consider this at an early stage and will require collaboration between the Developer, Highway Authority and Statutory Undertakers.

Instructions

- A utilities strategy MUST be developed at Masterplan stage which considers the key routes for utilities within the street. This MUST set out what utilities are to be incorporated and where they are intended to be placed (See Rule UT.2)
- A Utilities Strategy MUST identify both below and above ground infrastructure and where above ground cabinets and infrastructure are to be located to ensure these can be appropriately integrated with other highway features.
- The requirements for utility providers to access and maintain their infrastructure MUST be considered and incorporated into the street design.

Exceptions Permitted

None.



Not like this:
Oversized and poorly sited utility boxes impact on the quality and amenity of the public realm



Like this:
Appropriately sized utility boxes minimise impact on the public realm



Not like this:
Poorly located utilities

Rule UT.2 - Dedicated service corridors

Primary streets MUST incorporate a dedicated service corridor.

Why is this important?

Incorporating dedicated service corridors allows utilities to be co-ordinated in a dedicated space within the highway where they can be more easily accessed in the future for maintenance, without impacting on the integrity of the carriageway pavements, footways or established landscape. Furthermore, this reduces the future financial and environmental costs of accessing utilities and reinstating openings for both the Statutory Undertaker and Highway Authority.

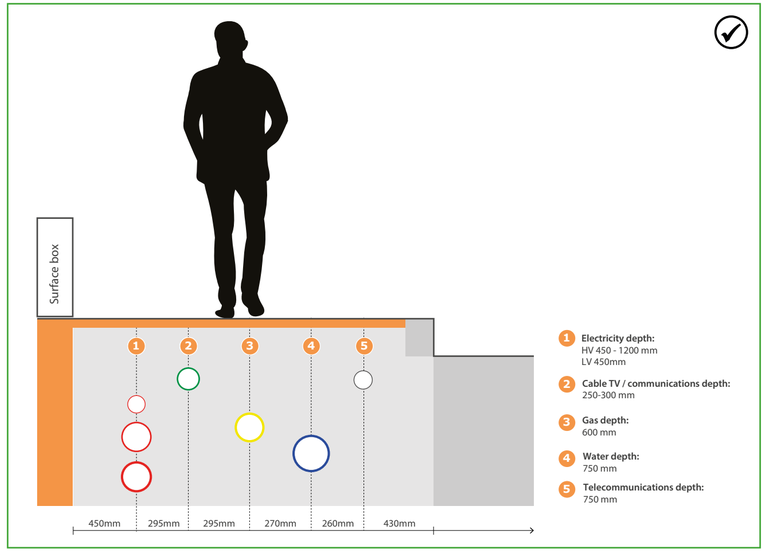
Placing utilities in a dedicated service corridor also reduces the design conflict with other key street elements such as sustainable drainage provision and landscaping and tree planting.

Instructions

- A dedicated Service Corridor MUST be incorporated on at least one side of the Primary Street and be accessible from the Carriageway.
- The Service Corridor MUST accommodate the spatial requirements of the primary service providers including Potable Water, Electricity, Street Lighting and Communications & Fibre.
- The Service Corridor MUST include provision for future Communication and Fibre services which may be introduced post adoption of the Street and MUST include spare universal ducting provision below side roads.
- Service Corridors MUST be finished to enable easy access from the surface and not hard paved as this could encourage their use as a footway or off carriageway parking.
- The use of modular suspended pavement systems and root barriers should be considered to mitigate the effects of tree root penetration in service corridors.

Exceptions Permitted

None.



Like this:
Must be laid as straight as possible and with a minimum depth of 350mm



Like this:
Well designed service strips integrated into the street design



Not like this:
Raised service strips give appearance of a narrow footway

Rule UT.3 - Utility access covers and chambers

Utility access covers and chambers MUST be located outside the carriageway to provide safe means of access to the maximum street extent possible.

Why is this important?

Utilities located within the carriageways often introduce points of access which can be a hazard to road users and require streets to be closed in order to gain access for future maintenance.

Access covers are a common point of failure in pavement construction, and so minimising the number of covers within the carriageway will increase the longevity of pavement construction.

Instructions

- Access covers MUST be located outside of the carriageway as far as reasonably practicable, to minimise future pavement failure points within the carriageway paving.
- Where access covers are required in the carriageway, they MUST be placed outside of the wheel tracks of vehicles and not introduce a hazard to two-wheeled users.
- All access covers MUST be laid parallel to the nearest adjacent service strip, footway or carriageway edging and MUST be laid to the bond of any modular paving.

Exceptions Permitted

None.



Like this:
Access covers laid parallel to the street and outside of tactile paving



Not like this:
Access chambers have not been co-ordinated and dectract from the streetscene



Not like this:
Access covers should be located outside of the carriageway as far as reasonably practicable

Rule UT.4 - Siting of access covers

Utility access covers MUST NOT be located within pedestrian desire lines, crossing locations or tactile paving.

Why is this important?

Utility covers are required within the highway to provide access to below ground services for inspection and maintenance, but poorly located covers can introduce a hazard to some users. This is particularly the case for vulnerable users including the elderly and visually impaired users where the raised profile of utility covers can introduce a trip hazard, and physically and visually obstruct the legibility of guidance paving.

Access covers can present a significant hazard to users walking, wheeling or cycling and introduce unnecessary maintenance burdens when not co-ordinated at street junctions. They can also present a similar difficulty for wheeled users, particularly wheelchair users where raised profiles of covers can restrict the ease the movement and the ability to manoeuvre at crossing points.

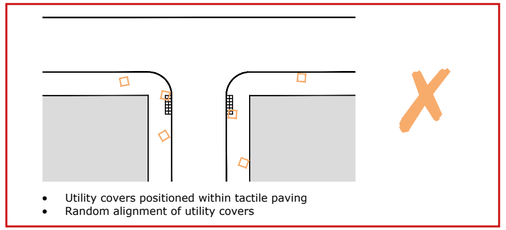
Locating access covers out of pedestrian desire lines and crossing points will limit the impact on movement through the development during inspection and maintenance, and also reduce poor workmanship when paving units are cut to fit around access covers.

Instructions

- Utility Access Covers MUST not conflict with proposed kerb or channel lines and MUST not be located within areas of Tactile or Corduroy hazard warning paving.
- Access Covers located in footways and cycleways MUST be pedestrian, cycle and wheelchair friendly such that they do not cause a hazard or inconvenience to these user groups.
- Access Covers MUST not be located in the line of crossing point within the carriageway.
- All Access Covers MUST be laid parallel to the nearest adjacent service strip, footway or carriageway edging and MUST be laid to the bond of any modular paving.

Exceptions Permitted

If it is not technically possible to avoid having a utility access cover within a pedestrian desire line, a recessed utility cover must be provided with surfacing to match the surrounding material. The Developer MUST provide technical justification for the exemption, and this exemption will not be permitted within hazard warning paving.

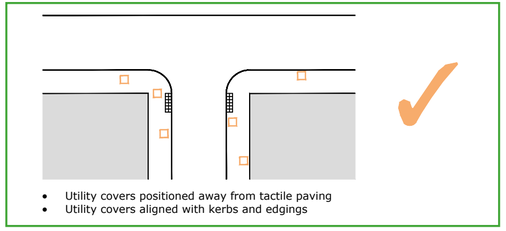


- Utility covers positioned within tactile paving
- Random alignment of utility covers

Not like this:
Poorly sited utility covers



Not like this:
Poorly sited utility covers within tactile paving



- Utility covers positioned away from tactile paving
- Utility covers aligned with kerbs and edgings

Like this:
Utility covers positioned away from tactile paving and aligned with kerbs and edgings



Not like this:
Poorly sited drainage covers adjacent to tactile pavement causes access issues for disabled users

Lifespan

Rule LS.1 - Management

Developments MUST include a management plan which sets out a clear approach to adoption, maintenance and management responsibilities and actions.

Why is this important?

Developments are required to meet a number of increasingly technical and environmental requirements to ensure that new developments are sustainably delivered and maintained. Many of these requirements need to be incorporated into the adoptable highway and include finished surfaces, street lighting, sustainable drainage, trees, soft landscaping and biodiversity measures.

The long-term sustainability and longevity of development is reliant on a clear adoption and maintenance strategy, recognising that these may not be the responsibility of a single organisation or department.

Furthermore, changes in legislation, such as the forthcoming Schedule 3 of the Flood & Water Management Act 2010, could change the design, and therefore the adoption and maintenance approach of these assets which needs to be clearly set out at the start of the development process.

Instructions

- Areas intended to be 'Highways Maintainable at Public Expense' (HMPE) MUST follow the Staffordshire Highways Base Specification.
- The management plan MUST provide a schedule of street assets and identify who is proposed to be responsible for adoption, maintenance and management.
- The management plan MUST include an anticipated programme of adoption which responds to the proposed phasing and delivery of the development.
- See Appendix C 'Adoption Procedures and Requirements' for further guidance on normal maintenance responsibilities.

Exceptions Permitted

None.

Rule LS.2 - Design life

Streets MUST be designed to provide a minimum 40-year design life for all highway assets.

Why is this important?

To ensure sustainable streets which minimise future maintenance liabilities, assets need to be designed to last. Many highway assets such as pavements have recognised life spans that designs need to achieve which is typically 40 years.

All assets within the street design MUST therefore be designed to have a minimum design life of 40 years.

Instructions

- Design Statements MUST be prepared at the start of the detailed design stage setting out the design life and supporting design standards or guidance for each Highway Asset.
- Design Statements MUST be prepared for, but not limited to; Pavements, Drainage, Lighting, Street Furniture, Landscaping, Street Furniture and Fencing.
- Maintenance Plans (See Rule LS.3) MUST be completed for each of the highway assets setting out a schedule of maintenance and inspection requirements in order for the asset to achieve its stated design life.
- Proprietary products proposed for use in areas intended to become 'Highways Maintainable at Public Expense' (HMPE) must be agreed with SCC by departure prior to planning consent being issued.

Exceptions Permitted

- Where assets are deemed to be a highway structure as defined by DMRB CG300, the design life MUST be 120 years.

Rule LS.3 - Materials

Street materials MUST be selected to consider future highway maintenance activities to ensure longevity of the street and public realm.

Why is this important?

The issue of maintainability is an important consideration in the design of any new development. This requirement also needs to balance achieving other rules such as the creation of place and quality.

Scheme design and material choice MUST therefore demonstrate that maintenance obligations on longevity and have been fully considered.

Instructions

- At an early stage, the responsibility for the future maintenance of roads, footways/footpaths, verges and open spaces MUST be identified (See Rule LS.1).
- In most developments the permissible range of materials attracting no maintenance payment is set out in the Staffordshire Highways Base Specification. Materials outside of the Base Specification must not be used without prior departure agreement.
- Materials outside this, including some materials used for the purpose of providing speed restraints, over-run areas and central islands for mini-roundabouts may be subject to a maintenance payment.
- Modular block paving can fade in colour, absorb oil and rapidly become stained. It is therefore essential to limit the acceptable range for adoption to particular colours and textures (see Staffordshire Highways Base Specification for further guidance). Care also needs to be given to the locations at which they are provided as where surfaces are subjected to stress caused by tight driving manoeuvres and significant volumes of heavy vehicles the formation and edge restraints are liable to fail. As such, their use should be limited to Shared Surface Roads, roads serving small developments in Conservation Areas and villages and for the construction of some speed restraints. As far as speed restraints are concerned, block paving should only be used on Minor Access Roads that have not been identified as a bus route and Minor Access Ways.
- Coloured or natural finished aggregate surface dressings can only be can be used on agreement with SCC where it helps to achieve Active Travel outcomes but is not preferred material.
- They should generally be restricted to rural locations where such materials will provide a recognisable continuation of existing surface treatments. Their use is likely to give rise to a requirement for a commuted maintenance payment due to their limited durability.
- All footways/footpaths that accommodate utility equipment shall have a conventional surface specification to avoid attracting a maintenance payment.

Exceptions Permitted

Any requests to use a material or process which is not covered by the Staffordshire Highways Base Specification requires submission and approval of an Asset Material Departure Form prior to final design approval. This form can be obtained from your scheme contact Engineer.

A list of previously approved departure materials is also available on request.

Rule LS.4 - Environmental Impact

Street material selection MUST demonstrate environmental considerations including locally sourced and recycled materials, and use of new technologies and design innovations.

Why is this important?

Promoting the use of low carbon, recycled and locally sourced materials in new develops helps promote sustainable developments within the country. Well considered decisions at this stage have the potential to provide both environmental and financial savings to the County Council and Developer during construction, and during the lifespan of the development.

Instructions

- The use of recycled or secondary aggregates MUST be considered first in design. Guidance on the acceptability of such materials is included Staffordshire Highways Base Specification.
- Locally sourced, and then UK sourced materials MUST be prioritised over materials which require importing.
- Low carbon material options MUST be considered in the material selection process, and their benefits considered alongside the longevity of the material. I.e. a lower carbon product may not always appropriate if it has a significantly lower lifespan.
- Design innovations MUST be considered and put forward to the Highway Authority which could positively contribute towards reduced carbon emissions in manufacture, construction or operation.
- The capacity for end of life recycling of materials and products MUST be considered at the design stage.

Exceptions Permitted

None

Chapter 7

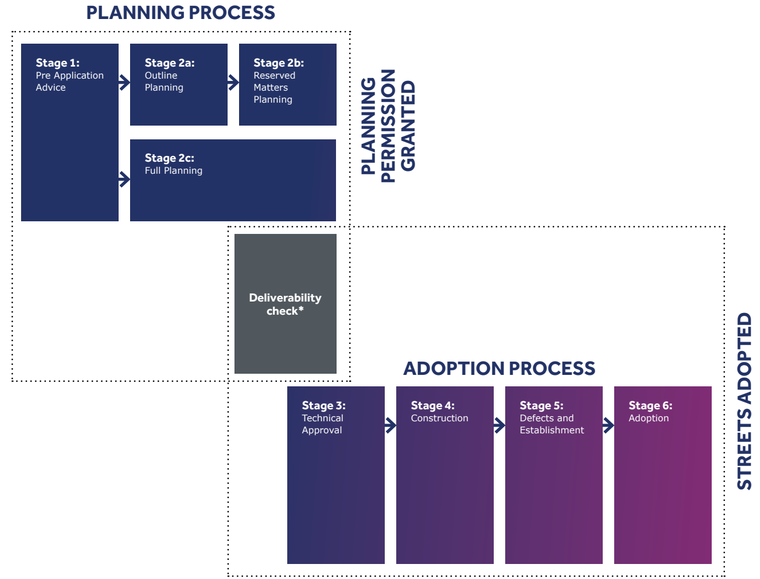
Compliance Checklists

7. Compliance Checklists

Six Stage Process

Design Code Rules have been developed for the six-stage process shown below.

Design Code Rules have been developed which set out the key information required, including Developer and SCC responsibilities at each Stage of the process.



*** Deliverability check:**

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc.. but does not include construction details.

Stage 1: Pre-application Advice

Staffordshire County Council (SCC) welcomes and encourages discussions before a Developer submits a planning application. Requesting the County Council's Pre-Application Advice is not mandatory.

Past experience has shown the discussions result in an improved application that is more likely to be successfully approved. Developers have found the Pre-Application process can reduce overall costs by cutting down on further work and time at the application stage.

Further information is also set out in Staffordshire's 'Information for Developers – Pre-application Highways Advice' which can be accessed here.

The service has the following benefits:

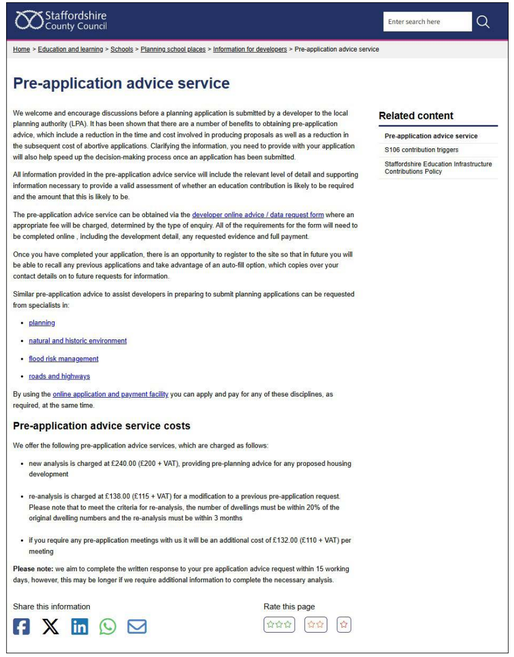
- Potentially reducing the time and cost involved in working up proposals including that of the developer's professional advisers.
- Reducing the subsequent cost of abortive applications
- Information on what the developer needs to provide with their application.
- Help speed up the decision-making process once an application has been submitted.

Stage Description:

- Developer intends to construct new road as part of development and/or to make changes to existing highway.
- Initial pre-planning discussions with SCC as Highway Authority (optional).

Core Statutory Processes:

- Pre-Planning Application engagement between highway authority, planning authority, developer and water / sewer company.



Staffordshire County Council

Enter search here

Home > Education and learning > Schools > Planning school places > Information for developers > Pre-application advice service

Pre-application advice service

We welcome and encourage discussions before a planning application is submitted by a developer to the local planning authority (LPA). It has been shown that there are a number of benefits to obtaining pre-application advice, which include a reduction in the time and cost involved in producing proposals as well as a reduction in the subsequent cost of abortive applications. Clarifying the information, you need to provide with your application will also help speed up the decision-making process once an application has been submitted.

All information provided in the pre-application advice service will include the relevant level of detail and supporting information necessary to provide a valid assessment of whether an education contribution is likely to be required and the amount that this is likely to be.

The pre-application advice service can be obtained via the developer online advice / data request form where an appropriate fee will be charged, determined by the type of enquiry. All of the requirements for the form will need to be completed online , including the development detail, any requested evidence and full payment.

Once you have completed your application, there is an opportunity to register to the site so that in future you will be able to recall any previous applications and take advantage of an auto-fill option, which copies over your contact details on to future requests for information.

Similar pre-application advice to assist developers in preparing to submit planning applications can be requested from specialists in:

- planning
- natural and historic environment
- flood risk management
- roads and highways

By using the online application and payment facility you can apply and pay for any of these disciplines, as required, at the same time.

Pre-application advice service costs

We offer the following pre-application advice services, which are charged as follows:

- new analysis is charged at £240.00 (£200 + VAT), providing pre-planning advice for any proposed housing development
- re-analysis is charged at £138.00 (£115 + VAT) for a modification to a previous pre-application request. Please note that to meet the criteria for re-analysis, the number of dwellings must be within 20% of the original dwelling numbers and the re-analysis must be within 3 months
- if you require any pre-application meetings with us it will be an additional cost of £132.00 (£110 + VAT) per meeting

Please note: we aim to complete the written response to your pre application advice request within 15 working days, however, this may be longer if we require additional information to complete the necessary analysis.

Related content

- **Pre-application advice service**
- S106 contribution triggers
- Staffordshire Education Infrastructure Contributions Policy

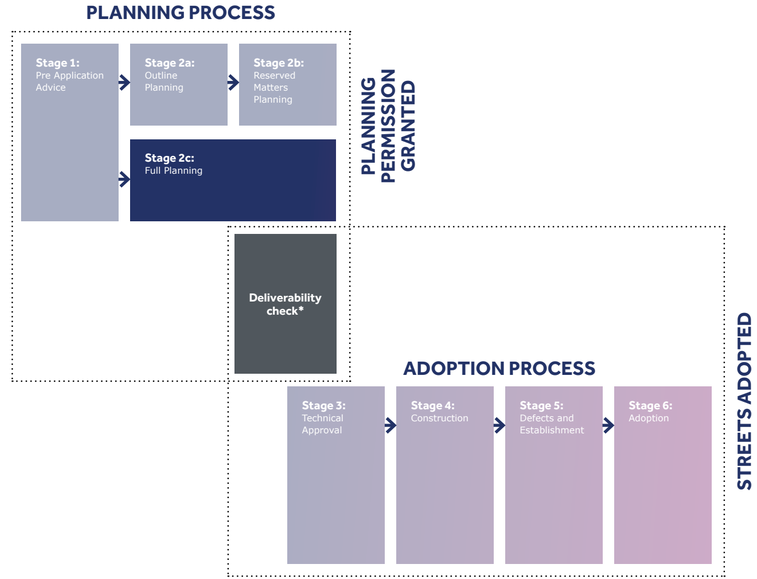
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Stage Outcome:

Having identified opportunities and agreed the principles of the movement network with SCC, applicants can then move forward with some confidence and begin to add detail to the proposal.

- The advice provided by SCC can include:
- Relevant policies and guidance.
- The relevant level of detail and supporting information necessary to provide a valid assessment of highways and transport issues.
- Whether a contribution towards highways and/or transport improvements is likely to be required.
- Where a Transport Statement/Assessment is required, determine the content, preparation and presentation that is likely to satisfy SCC requirements.
- Appropriate access arrangements.
- Initial advice on potential work required concerning highway improvements as a result of the proposal.
- The level of response SCC provide is based on the quality and quantity of information provided at the time of submission.



* Deliverability check:

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc.. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Highways	General information to be provided by the Developer for review / discussion with SCC: • Site location plan (Scale 1:1250). • Quantum and mix of proposed development. • Opportunities and constraints plan including an analysis of the site and its context. • Schedule of existing uses, including planning history with reference numbers. • Plan of all key facilities serving the site indicating locations of education, employment, food retail, non-food retail, health care facilities, etc (including any planned as part of the development) • Parking strategy for all transport modes. Simple concept sketches/plans showing proposals for discussion showing how initial analysis influences: • General principles for public and private spaces for adoption. • Initial indication of any likely departures from SCC Base Specification. • Walking, cycling, public transport and general vehicle access points. • Form of principal junctions. • Proposed street hierarchy. • Proposed street functions – both movement and place. • Key nodes and spaces. • Highway SuDS principles. • Street lighting principles (following SCC Lighting Specifications).	Highways Development Management: • Agreement of concept design principles. • Agree the scope for the Transport Assessment. • Agree the Scope the Development Travel Plan. Highways Projects / Agreements: • Agree general principles to understand any existing local operational/ maintenance issues which could be relevant to a proposal, including potential commuted sums, particularly if special materials or innovative designs are being proposed.
Sustainable Drainage (private property drainage)	General information to be provided by the Developer for review / discussion with SCC: • A location plan. • An existing conditions plan showing overland flow paths, topography (high and low points), existing land drainage features/network. • Existing potential surface water flood risk plan (e.g. extract from public mapping or local SFRA). • Refer to Staffordshire SuDS Handbook for more information.	Lead local flood authority: • Feedback instances of historic flooding and/or known hydraulic behaviours within, and in the vicinity of, the site. • Signpost key local requirements. • Provide feedback on principles of the development proposals, specifically with regard to received concept sketches and plans.

	Developer Information	SCC Responsibility
Fees Payable	Fees payable are set out in 'Information for Developers – Pre-application Highways Advice' which can be accessed here. Online applications are paid via https://apps2.staffordshire.gov.uk/web/onlineorder once the application is complete and any required documents are uploaded. This is the only method and allows immediate receipt of payment confirmation. The flood team provides a pre-application advice service for developments within Staffordshire. Information on the services offered and fees payable are available here: https://www.staffordshire.gov.uk/environment/flood-risk-management/information-planners-and-developers The Environment Specialist team also provides a pre-application advice service for developments within Staffordshire. Information on the services offered and fees payable are available here:	
Rule Specific Requirements		
Place		
Public Realm	• Initial analysis of site opportunities and constraints, considering existing movement patterns of the site and its surroundings and how the development can best respond to them. • Simple concept sketches/plans showing how this initial analysis influences: • Points of access • Proposed street hierarchy • Proposed street functions • Walking, cycling and public transport access • Key nodes and spaces	• Review and comment. • Advise on relevant planning guidance and legislation. • SCC to advise if an Equality Impact Assessment is required.

	Developer Information	SCC Responsibility
Green Infrastructure	• Site visit by the developer to assess existing trees and habitats. • Existing site plan showing topography, existing vegetation and habitats, constraints and opportunities. • Basic proposals may be included at this stage either on plan or in written form	SCC Environment Specialist: • Advice from each environmental specialist. • Assess site constraints. • Advise on relevant planning guidance and legislation.
Blue Infrastructure	• Developer to identify likely receptor for water discharged from site: • Watercourse • Soakaway • Sewer • Where a site is deemed to be at risk of flooding or demonstrated risk a pre-app is suggested and can be applied for on the portal. for multi phased developments pre-app advice application is deemed necessary.	• Review pre-app application and comment on known risk.
Movement		
Connected Networks	• Developer to confirm if any PROW are impacted by proposals, and if there are is any potential to enhance existing PROW network. • Developer to review if proposals are close to any LCWIP routes.	• SCC request at the Pre-application stage that the permeability and connected network feature in all future design stages. • Advise on relevant planning guidance and legislation. • SCC to confirm LCWIP requirements. • Review and comment.
User Hierarchy	• Initial analysis of site opportunities and constraints, considering existing movement patterns of the site and its surroundings and how the development can best respond to them. • Simple concept sketches/plans showing how this initial analysis influences: • Active travel and public transport access and route • Proposed street hierarchy • Proposed street functions • Typical street cross sections varying by place function • Initial junction concepts • Potential bus stop locations • Demonstration that the proposals accord with the user hierarchy.	• Review and comment
Functionality	• Confirmation of any areas where the use of DMRB is required, eg. bridges, major junctions etc.	• Review and comment

	Developer Information	SCC Responsibility
Access and Servicing		
Access to Premises	• Developer to provide information where direct frontage access is not appropriate.	• Review and comment
Servicing	• Developer to provide iniital principles for access to any non-residential uses in plan or written form. • Developer to provide initial principles for refuse strategy in plan or written form.	• Review and comment
Parking	• Basic proposals for car and cycle parking in plan or written form.	• Review and comment
Safety and Security		
Road Safety	• Developer to confirm if any streets proposed not to be 20mph design speeds and speed limits.	• SCC to confirm if RSA is required for any aspects of the development. • SCC to advise if an Equality Impact Assessment is required.
Security	• Developer to identify any streets without good passive surveillance.	• Review and comment
Lighting	• Developer to confirm initial lighting principles.	• Review and comment
Utilities		
Utilities	• Developer to identify any existing utility constraints on site, eg. sub stations. • Developer to identify utility requirements to serve the development. • Developers to outline available utility supplies to demonstrate viability of the development.	• Review and comment
Lifespan		
Lifespan	• Demonstrate awareness of Staffordshire sustainability policies. • Developer to identify any ground conditions that impact potential development.	• Review and comment

Stage 2a: Outline Planning

As the Highway Authority, Lead Local Flood Authority, Minerals & Waste Planning Authority and Local Education Authority, Staffordshire County Council is a statutory consultee in the planning process and will review all planning applications submitted in the County.

Stage Description:

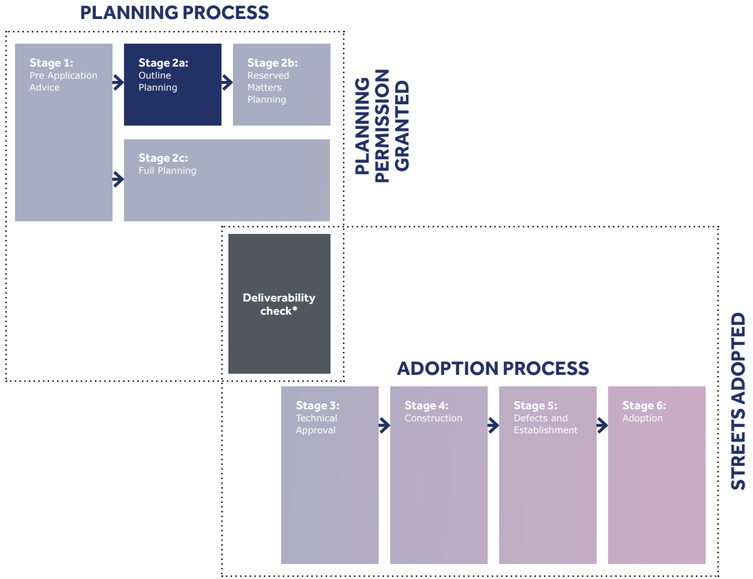
- Outline Planning application made to Local Planning Authority, typically with access not reserved.
- SCC consulted by LPA as a Statutory Consultee on highway and drainage related matters.

Core Statutory Processes:

- Outline planning application submitted to Local Planning Authority.

Stage Outcome:

- Planning permission granted with highway / drainage conditions attached.



* Deliverability check:

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Highways	To prepare and submit drawings, reports and supporting information to the Local Planning Authority. The following key information will be reviewed by SCC as part of the planning application process: <u>Drawings</u> submitted: • Site access proposals (detailed, refer to Full planning Stage 2b). • Site masterplan • Supplementary sketches & Design Input Statement (DIS) to demonstrate principles for: • Street hierarchy and typologies • Typical junction details • Car and cycle parking standards and typical arrangements • Vehicle tracking • Walking and cycling access points and routes • Public transport routes and stops • Drainage and utilities principles • Highway landscape and planting • Highway materials <u>Reports</u> submitted: • Transport Assessment • Travel Plan For any highways to be determined: • Stage 1 Road Safety Audit & Response Report • Departures from Design Code/Standard Application	<u>Highways Development Management:</u> • Review submitted details and confirming acceptance of design details, parameters and principles. • Advising where alternative design details, parameters and principles need to be incorporated. • Providing a clear and defined guidance on which to develop detail proposals. <u>Highways Projects / Agreements:</u> For new adoptable streets and changes to existing adopted streets: • Confirm acceptance of highway design principles being agreed by Development Control Team • Comment on suitability of highway materials, highway landscaping and planting proposals. • Comment on acceptability of highway sustainable drainage principles. • Advise developer of potential commuted sums

	Developer Information	SCC Responsibility
Sustainable Drainage (private property drainage)	General information to be provided by the Developer for review / discussion with SCC: • A location plan. • An existing condition plan showing overland flow paths, topography (high and low points), existing land drainage features/network. • Existing potential surface water flood risk plan (e.g. extract from public mapping or local SFRA). A surface water drainage strategy/concept design is required at outline planning, appropriate to the consent being sought, which should include: • Assessment of drainage hierarchy • Proposed key green/blue flow routes. • Hydraulic considerations (e.g. discharge/infiltration rates, attenuation requirements). • Hydraulic calculations (e.g. overarching system performance in 1 in 1 year, 1 in 30 year and 1 in 100 year plus climate change events etc.). • Level of proposed treatment train. • Infiltration potential (including infiltration testing in accordance with BRE 365 Guidance, where available). • Selection of SuDS features. • Proposed overland flow routes. • Anticipated maintenance and access arrangements. • Proposed amenity, biodiversity and landscaping benefits.	Lead local flood authority: • Review and comment/accept hydraulic considerations. • Review and comment/accept principles of development proposals in the context of national and local policy and guidance.
Fees Payable	• Fees payable are set out in 'Charges and fees for planning related services' which can be accessed here.	• N/A

	Developer Information	SCC Responsibility
Rule Specific Requirements		
Place		
Public Realm	• Scaled drawings and cross sections to demonstrate how the key principles agreed at concept design are achieved, to include: • Site access proposals • Street hierarchy and typologies • Walking and cycling routes • Public transport routes and stops	• Review and comment. • Advise on relevant planning guidance and legislation.
Green Infrastructure	• Tree Survey in accordance with BS 5837: Trees in Relation to Design, Demolition, and Construction • Arboricultural Impact Assessment, in accordance BS 5837: Trees in Relation to Design, Demolition, and Construction. • Preliminary plan showing outline landscape proposals including retained and removed trees and planting typologies. • Green Infrastructure on or close to the highway to be in accordance with SCC Tree Policy. • Completion of the mandatory Biodiversity net gain question. • The following BNG supporting information relating to the parent site should be included: • Pre-development biodiversity value, including date of calculation. • Version of the metric used. • Details of any activities carried out prior to the calculation of the biodiversity value. • Details of any irreplaceable habitats.	• Review of submission. • Consultation and approval or approval with conditions. • Confirmation of requirement to deliver minimum 10% biodiversity net gain.
Blue Infrastructure	• Where a major or area of risk we would expect to see an outline application	• Review and comment on outline in reference to Appendix A

Developer Information		SCC Responsibility
Movement		
Connected Networks	• Constraints plan should adequately demonstrate direct routes through the development for those walking cycling and wheeling. • Initial assessment of motor traffic flows on internal network to demonstrate suitability of on-carriageway cycling. • Offsite connections and routes for active travel to key destinations, with a route audit provided. Proposals should be made to address any deficiencies identified by the audit.	• Review of submission • SCC ensure that the principles of a connected network are agreed at outline. • Consultation and approval or approval with conditions
User Hierarchy	• Scaled drawings and cross sections to demonstrate how the key principles agreed at concept design will be achieved, to include: • Site access proposals • Active travel routes • Public transport routes and stops • Street hierarchy and typologies • Typical junction details • Car and cycle parking standards and typical arrangements • Demonstration that the proposals accord with the user hierarchy.	• Review of submission • Consultation and approval or approval with conditions
Functionality	• Where a development includes the provision of or changes to a strategic road the developer should agree with Staffordshire County Council which elements of DMRB should apply and where variationsfrom the requirements may be made.	• Review and comment
Access and Servicing		
Access to Premises	• Developer to provide information where direct frontage access is not appropriate.	• Review and comment
Servicing	• Developer to provide iniital principles for access to any non-residential uses in plan or written form. • Developer to provide initial principles for refuse strategy in plan or written form.	• Review and comment
Parking	• Basic proposals for car and cycle parking in plan or written form.	• Review and comment

Developer Information		SCC Responsibility
Safety and Security		
Road Safety	• Developer to confirm if any streets proposed not to be 20mph design speeds and speed limits.	• SCC to confirm if RSA is required for any aspects of the development. • SCC to advise if an Equality Impact Assessment is required.
Security	• Developer to identify any streets without good passive surveillance.	• Review and comment
Lighting	• Developer to confirm initial lighting principles.	• Review and comment
Utilities		
Utilities	• Developer to identify any existing utility constraints on site, eg. sub stations. • Developer to identify utility requirements to serve the development. • Developers to outline available utility supplies to demonstrate viability of the development.	• Review and comment
Lifespan		
Lifespan	• Demonstrate awareness of Staffordshire sustainability policies. • Developer to identify any ground conditions that impact potential development. Submit maintenance proposals.	• Review and comment

Stage 2b: Reserved Matters Planning

Stage Description:

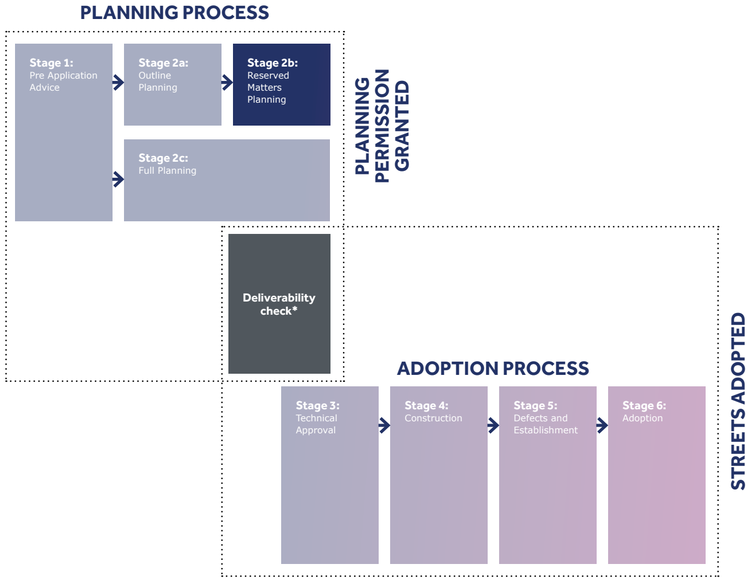
- Full / Reserved Matters planning application made to Local Planning Authority.
- Staffordshire County Council consulted by LPA as a Statutory Consultee on highway and drainage related matters.

Core Statutory Processes:

- Full or reserved matters planning application to Local Planning Authority

Stage Outcome:

- Planning permission granted with highway / drainage conditions attached.



* Deliverability check:

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Highways	<u>Detailed Drawings</u> submitted: • Detailed horizontal alignment and geometry • Visibility splays and vehicle tracking • Vertical design • Cross sections of proposed streets and building lines • Highway Materials • Highway Planting • Walking and cycling access points and routes • Public transport routes and stops. • Highway drainage layout & calculations and strategy document • Utilities strategy/masterplan • Car and cycle parking standards and typical arrangements • Lighting design & Calculations • Anticipated Departure from Standards <u>Reports</u> submitted: • Design & Access Statement • Updated Design Input Statement (DIS) • Stage 1 Road Safety Audit & Response Report • Departures from Standard Application	<u>Highways Development Management:</u> • Review and confirm acceptance of design detail submitted. • Advise where additional detail needs to be provided. • Complete Stage 1 Road Safety Audit Overseeing Organisation Response and agree each action with the Developer. Output: signed RSA1 Response Report. • Confirm acceptance of any departures from Standard. • Liaise with Highway Operations / Agreements Team elements of technical detail being accepted at planning. <u>Highways Projects / Agreements:</u> • Review all technical details submitted and confirm agreement with Highway Development Control responses. • Advise developer of potential commuted sums • Identify likely Traffic Regulation Orders which may be required or need to be amended as part of the development, including preferences on how certain restrictions should be applied.

	Developer Information	SCC Responsibility
Sustainable Drainage (private property drainage)	General information to be provided by the Developer for review / discussion with SCC: • Full Sustainable Drainage Assessment • A location plan. • An existing conditions plan showing overland flow paths, topography (high and low points), existing land drainage features/network. • Existing potential surface water flood risk plan (e.g. extract from public mapping or local SFRA). • A detailed surface water drainage strategy is required at full planning which should include: • Hydraulic considerations (e.g. discharge/infiltration rates, attenuation requirements). • Hydraulic calculations (e.g. detailed network performance in 1 in 1 year, 1 in 30 year and 1 in 100 year plus climate change events etc.). • Level of proposed treatment train. • Infiltration potential (including infiltration testing in accordance with BRE 365 Guidance). • Detailed design of proposed SuDS features, including layout plan and typical details. • Proposed key green/blue flow routes and associated overland flow routes. • Details of amenity, biodiversity and landscaping elements within SuDS features. • Details of proposed treatment train. • Supporting design report which should also include: • Assessment of drainage hierarchy. • Selection of SuDS features. • Operation & Maintenance Manual, including access arrangements.	Lead local flood authority: • Review and comment/accept hydraulic considerations and associated calculations. • Review and comment/accept development proposals with regard to surface water in the context of national and local policy and guidance.
Fees Payable	• Fees payable are set out in 'Charges and fees for planning related services' which can be accessed here.	n/a
Rule Specific Requirements		
Place		
Public Realm	• No further information required.	• N/A
Green Infrastructure	• Development and refinement of landscape plan. • Landscape masterplan with planting plan, specification, plant schedule including planting densities, sizes and numbers. • Update Arboricultural Method Statements as necessary. • Landscape Management Plan.	• Review of submission • Consultation and approval or approval with conditions
Blue Infrastructure	• As required	• As required

	Developer Information	SCC Responsibility
Movement		
Connected Networks	• Layout and dimensions of routes to and through the development for active travel, including minor streets and protected cycle infrastructure on busier streets. • Detailed assessment of motor traffic flows on internal network to demonstrate suitability of on-carriageway cycling.	• Review of submission • Consultation and approval or approval with conditions
User Hierarchy	• Detailed masterplans should demonstrate that routes through the development are just as direct, if not more direct for those walking, wheeling and cycling when compared the private vehicle routes.	• Review of submission • Consultation and approval or approval with conditions
Functionality	• No further information required.	• N/A
Access and Servicing		
Access to Premises	• No further information required.	• N/A
Servicing	• No further information required.	• N/A
Parking	• No further information required.	• N/A
Safety and Security		
Road Safety	• Developer to liaise with SCC to confirm if RSA is required for any aspects of the development.	• SCC to confirm if RSA is required for any aspects of the development.
Security	• No further information required.	• N/A
Utilities		
Utilities	• No further information required.	• N/A
Lifespan		
Lifespan	• Submit maintenance proposals.	• Review and comment

Stage 2c: Full Planning

Stage Description:

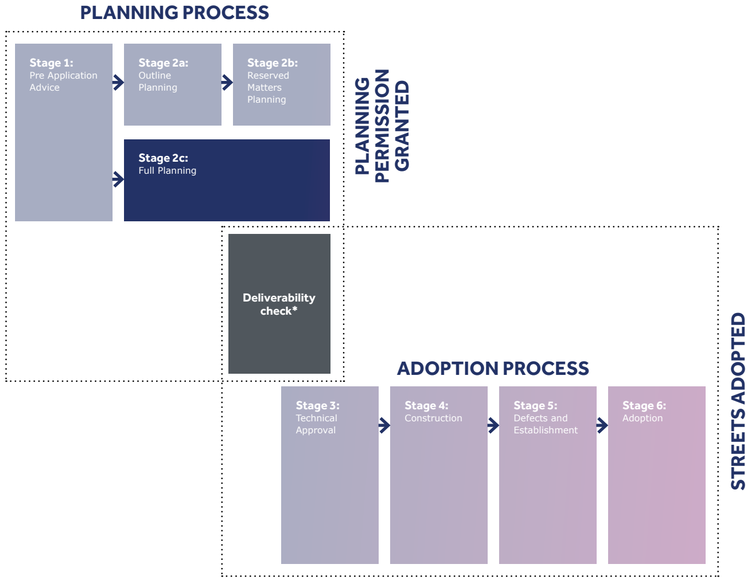
- Full / Reserved Matters planning application made to Local Planning Authority.
- Staffordshire County Council consulted by LPA as a Statutory Consultee on highway and drainage related matters.

Core Statutory Processes:

- Full or reserved matters planning application to Local Planning Authority

Stage Outcome:

- Planning permission granted with highway / drainage conditions attached.



* Deliverability check:

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This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Basic Information Requirements	• To prepare and submit detailed drawings, reports and supporting information to the Local Planning Authority. • To prepare and submit sufficient detailed drawings, reports and supporting information to the Local Highway Authority to ensure scheme deliverability. • The following detailed information will be reviewed by Staffordshire County Council as part of the planning application process. This information should be provided for each element of the submission, i.e. proposed site, principal access(es), off-site improvement works. • Detailed information submitted: ◦ Extent of HMPE proposed ◦ Highway materials ◦ Detailed horizontal alignment and geometry ◦ Visibility splays and vehicle tracking ◦ Vertical design ◦ Cross sections of proposed streets and building lines ◦ Landscape detailed design ◦ Walking and cycling access points and routes ◦ Public transport routes and stops ◦ EV charging points (if proposed in the highway) ◦ Bin collection and refuse arrangements ◦ Utilities strategy/masterplan ◦ Car and cycle parking standards and typical arrangements ◦ Lighting design & calculations ◦ Agreed Departures from Standards ◦ Departures from Standard Application	<u>Highways Development Management:</u> • Review and confirm acceptance of design detail submitted. • Advise where additional detail needs to be provided. • Confirm acceptance of any departures from Standard. • Liaise with Highway Projects / Agreements Team to review elements of technical detail being accepted at planning to ensure scheme deliverability. • Issue of confirmation of scheme deliverability (Deliverability Check). <u>Highways Projects / Agreements:</u> • Commission preliminary Technical Review (if required). • Review all technical details submitted and confirm agreement with Highway Development Control responses. • Advise developer of potential commuted sums • Identify likely Traffic Regulation Orders which may be required or need to be amended as part of the development, including preferences on how certain restrictions should be applied.
Fees Payable	• Fees payable are set out in 'Charges and fees for planning related services' which can be accessed here.	• N/A

Developer Information		SCC Responsibility	
Rule Specific Requirements			
Place			
Public Realm	• No further information required.	• N/A	
Green Infrastructure	• Arboricultural Impact Assessment in accordance with BS 5837: Trees in Relation to Design, Demolition, and Construction, • Landscape masterplan with planting plan, specification, plant schedule including densities, sizes and numbers. • If not submitted as Reserved Matters, the following should be submitted at this stage: • Landscape masterplan with planting plan, specification, plant schedule including planting densities, sizes and numbers. • Update Arboricultural Method Statements as necessary. • Landscape Management Plan.	• Review of submission. • Consultation and approval or approval with conditions.	
Blue Infrastructure	• Blue Infrastructure Management Plan • As a preference blue infrastructure is preferred to traditional drainage of the highway. • Highway strategy document including points of discharge • Highway drainage layout • Highway drainage calculations (as relevant) • For private drainage (ie buildings, roofs, driveways, car parks etc.) please refer to SCC SuDS Handbook.	• Review of submission. • Consultation and approval or approval with conditions.	
Movement			
Connected Networks	• Type, layout and dimensions of routes to and through the development for active travel, including any off street walking and cycling routes, minor streets and protected cycle infrastructure on busier streets. • Confirmation that any unadopted routes for walking and cycling will be available for public use at all times. • Detailed assessment of motor traffic flows on internal network to demonstrate suitability of on-carriageway cycling.	• Review of submission. • Consultation and approval or approval with conditions.	
User Hierarchy	• Developers should quantify walking and cycling trips alongside the anticipated vehicle trip generation. • Routes to key destinations should be assessed to determine that the active travel infrastructure is appropriate to accommodate future demand. • Detailed masterplans should demonstrate that routes through the development are just as direct, if not more direct for those walking, wheeling and cycling when compared the private vehicle routes.	• Review of submission. • Consultation and approval or approval with conditions.	

Developer Information		SCC Responsibility	
Functionality	• No further information required.	• N/A.	
Access and Servicing			
Access to Premises	• Confirmation that traffic flows where direct access to dwellings is proposed do no exceed 10,000 vpd.	• Review of submission. • Consultation and approval or approval with conditions.	
Servicing	• Details of waste and recycling receptacles. • Details of any private servicing requirements (e.g. schools / commercial / retail premises).	• N/A.	
Parking	• Details of cycle parking in areas of HMPE. • Details of general car parking in areas of HMPE. • Details of EV charging in areas of HMPE.	• Review of submission. • Consultation and approval or approval with conditions.	
Safety and Security			
Road Safety	• Developer to liaise with SCC to confirm if RSA is required for any aspects of the development.	• SCC to confirm if RSA is required for any aspects of the development.	
Security	• Proposals for lighting of unadopted streets and routes.	• Review of submission and recommendation of any planning requirements.	
Utilities			
Utilities	• Details of utilities corridors and locations. • Locations of sub stations. • Cabinet details and locations.	• Review of submission. • Consultation and approval or approval with conditions.	
Lifespan			
Lifespan	• Details of materials proposed for HMPE. • Proposals for maintenance of unadopted streets and routes. • Confirm maintenance requirements for any proposed departure materials.	• Review of submission. • Consultation and approval or approval with conditions.	

Stage 3: Technical Approval

Stage Description:

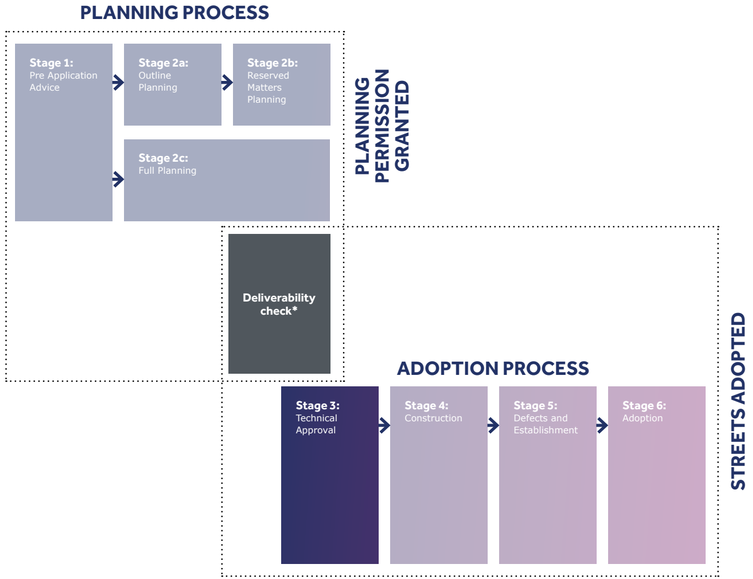
- Discharge of planning conditions.
- Developer makes Section 38 / Section 278 technical submission.

Core Statutory Processes:

- Technical submission for S.38 Legal Agreement.
- Technical submission for S.278 legal agreement.
- Sewers offered for adoption.
- Traffic Regulation Orders and Public Right of Ways submitted.

Stage Outcome:

- Technical Approval granted.



* Deliverability check:

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Basic Information Requirements	• To prepare and submit detailed technical drawings, construction details and supporting calculations and reports for technical approval and suitable for construction. • The following standard checklist of information needs to be provided for technical approval as checking will only commence once all information has been received. Where technical approval is being sought, the information being developed for approval should be also be used to discharge the relevant planning condition including: • Horizontal geometric alignment • Vertical alignment • Standard details • Ground conditions • Drainage and utilities • Street lighting • Planting plan and specification to include species, densities, grass mixes, maintenance and after care etc.. • Street furniture in HMPE • Technical Approval: • Location plan • General Arrangement / site layout / primary agreement plan • Site clearance • Typical construction details • Kerbing and footways • Cycle tracks • Surfacing • Drainage • Drainage long section • Chamber schedules • Existing public utility plant • Proposed combined services plan • Traffic signs and road markings • Traffic signals • Street lighting • Cross sections • Long section • Structural drawings • Departure from Standards (re-submitted) • Land Dedication Plan	<u>Highways Development Management:</u> • SCC Highways Development Team handover project to Highways Projects / Agreements Team. <u>Highways Projects / Agreements:</u> • Commission final Technical Review. • Review all technical details submitted and confirm alignment with Deliverability Check. • Advise developer of potential commuted sums • Identify likely Traffic Regulation Orders which may be required or need to be amended as part of the development, including preferences on how certain restrictions should be applied.

	Developer Information	SCC Responsibility
Fees Payable	• Legal Agreement drafted. • Bond and fees paid. • Local authority costs indicated / fee estimate provided. • Fees payable are set out in 'Highway Agreements' which can be accessed here.	• N/A
Rule Specific Requirements		
Place		
Public Realm	• No further information required.	• N/A
Green Infrastructure	• Confirmation that Management Arrangements comply with SCC Highway Tree Management Guidance (ADD LINK) • All landscape information plus any outstanding details that may be requested such as: • Tree pit details • Tree supports / guards • Irrigation solutions • No dig construction specifications • Seed mixes	• Review, comment and approve.
Blue Infrastructure	• Discharge of drainage conditions review.	
Movement		
Connected Networks	• Detailed design of routes to and through the development for active travel, including minor streets, showing layout, dimensions and construction details, and confirmation of extent of proposed adoption up to the limit of land in the developers' control.	• Review, comment and approve.
User Hierarchy	• Detailed masterplans should demonstrate that routes through the development are just as direct, if not more direct for those walking, wheeling and cycling when compared the private vehicle routes.	• Review, comment and approve.
Functionality	• No further information required.	• N/A

	Developer Information	SCC Responsibility
Access and Servicing		
Access to Premises	• No further information required.	• N/A
Servicing	• No further information required.	• N/A
Parking	• No further information required.	• N/A
Safety and Security		
Road Safety	• No further information required.	• N/A
Security	• No further information required.	• N/A
Utilities		
Utilities	• No further information required.	• N/A
Lifespan		
Lifespan	• Design in accordance with the Staffordshire Highways Base Specification: • Staffordshire Highways Base Specification - Staffordshire County Council	• Review and approve.

Stage 4: Construction

Stage Description:

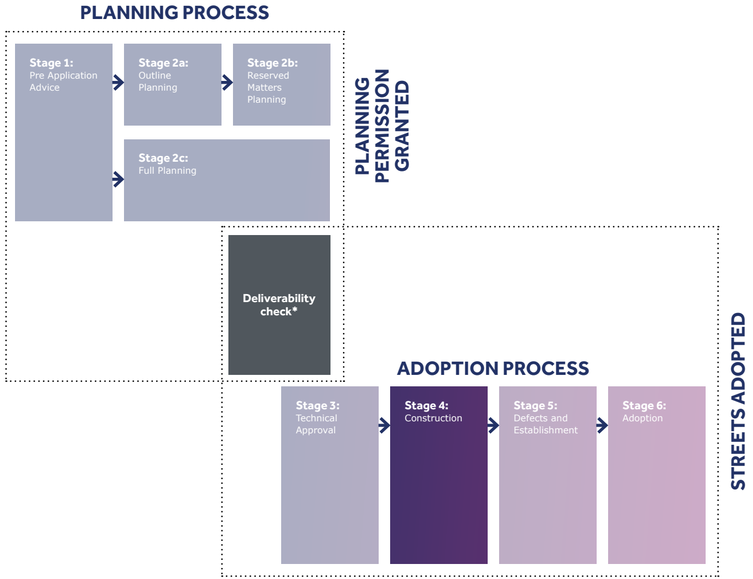
- Construction commences.

Core Statutory Processes:

- First certificate issued.
- Percentage of bond reduced.

Stage Outcome:

- Construction complete.



* Deliverability check:

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc.. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Basic Information Requirements	• Scheme constructed according to approved design. • Works completed. • Appropriate supervision by suitably qualified landscape architects, arborists and ecologists. • Use of appropriately qualified landscape contractors and tree surgeons. • Construction Environmental Management Plan is required before start of build.	Road Adoptions Team • S.38 supervision process • First certificate issued. • Percentage of bond reduced.
Fees Payable	• Fees payable are set out in 'Highway Agreements' which can be accessed here.	• N/A

Stage 5: Defects and Establishment

Stage Description:

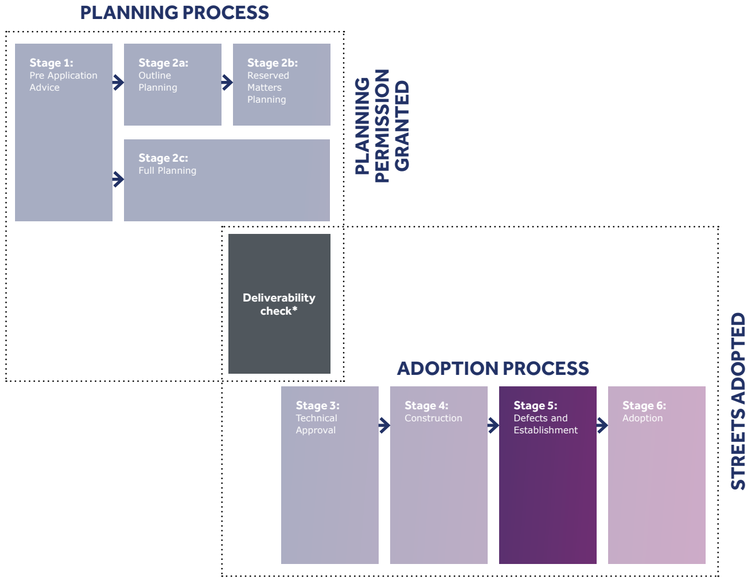
- Defects and establishment period.

Core Statutory Processes:

- SCC will monitor the works; agree completion and the end of the defects period.

Stage Outcome:

- Defects and establishment period completed.



* Deliverability check:

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc.. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Basic Information Requirements	• Monitor establishment. • Rectification of defects. • Review and update Landscape Management Plan. • Tree check • 12 Month Maintenance Check • Require named person for ownership, management and maintenance.	• Review and comment.
Fees Payable	• Fees payable are set out in 'Highway Agreements' which can be accessed here.	• N/A

Stage 6: Adoption

Stage Description:

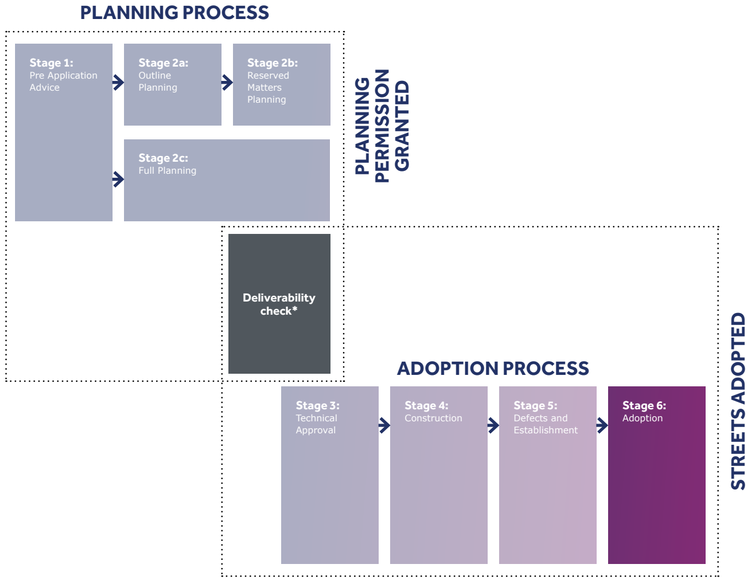
- Highway adopted by Staffordshire County Council to be maintained at public expense.

Core Statutory Processes:

- Final certificate issued.

Stage Outcome:

- Highway maintained at public expense.
- SCC's asset management plan details how we will manage the highway asset to ensure we achieve our priority outcomes, taking into account finance and the current asset condition, differing stakeholder needs, localised priorities and the benefits they provide.
- https://www.staffordshire.gov.uk/Highways/Managing-the-highway-asset/Overview.aspx



* Deliverability check:

A Deliverability Check is confirmation from SCC that the finished design of the streets that is consulted upon by the LPA at Planning Application Stage and is deliverable.

This includes the layout and geometry of the streets, material finishes, drainage and landscape design etc.. but does not include construction details.

Compliance Checklist:

	Developer Information	SCC Responsibility
Basic Information Requirements		
Highways	• Any necessary remedial work completed. • Provide spatial data for all highway assets, including but not limited to pavement type, road markings, road signs, barriers, bollards, kerb types, crossing points. Ideally to be provided in GIS format. • It is the developer's responsibility to check the required spatial data for Adoption with highwaydata@staffordshire.gov.uk prior to submission • Review and update Landscape Management Plan. • As-built construction drawings. • Provide commuted sum for tree maintenance. • Require named person for ownership, management and maintenance. • Provide spatial data for drainage assets in the highway. • Review and store within database management system. • Provide commuted sum for asset maintenance of any special items. • Spatial data for foot and cycleway assets in the highway.	• Responsibility transfers to Highways Asset Management team. • Works serve a minimum 12 month maintenance period. • Works inspected by local authority. • Review and store within database management system.
Fees Payable	• Fees payable are set out in 'Highway Agreements' which can be accessed here.	• N/A

Appendix A

Design Code Metrics

Place Metrics

Rule	Geometric/ Measured Requirements
Place	
Rule PR.1 - Street hierarchy and context	• No geometric requirements - refer to rule.
Rule PR.2 - Encourage activity	• No geometric requirements - refer to rule.
Rule PR.3 - Reflect and enhance local character	• No geometric requirements - refer to rule.
Rule PR.4 - Mobility difficulties	Recommended distance limit without a rest Wheelchair users: 150 metres Vision impaired people: 150 metres Walking stick and cane users: 50 metres Mobility impaired people without a walking stick: 100 metres
Rule PR.5 - Signage and markings	• No geometric requirements - refer to rule.
Rule GI.1 - Existing trees	• Existing trees MUST be retained if possible. If this is not possible, trees MUST be replaced at a 3:1 ratio with appropriate planting.
Rule GI.2 - Root Protection Areas (RPA's)	• No geometric requirements - refer to rule.
Rule GI.3 - Tree siting	• No geometric requirements - refer to rule.
Rule GI.4 - Tree species	• No geometric requirements - refer to rule.
Rule GI.5 - Respond to local landscape character	• No geometric requirements - refer to rule.
Rule GI.6 - Maintenance	• Planting shall ONLY be adopted if 5 years maintenance has been carried out by the developer.
Rule BI.1 - Sustainable Drainage Systems (SuDS)	• MUST include mitigation within storage calculations for future climate change, designed to 100yr + Climate Change, currently 40%.

Movement Metrics

Rule	Geometric/ Measured Requirements
Movement	
Rule CN.1 - Connected and permeable network	• No geometric requirements - refer to rule.
Rule CN.2 - Public Rights of Way (PRoW)	• No geometric requirements - refer to rule.
Rule CN.3 - Cul-de-sacs and shared private drives	• No geometric requirements - refer to rule.
Rule CN.4 - Limits of adoption	• No geometric requirements - refer to rule.
Rule UH.1 - User hierarchy in the street network	• No geometric requirements - refer to rule.
Rule UH.2a - Pedestrian Comfort - Continuous Footways	• The crossing must be the same width as the main footway and use the exact same surfacing material. If the existing pavement comprises asphalt in the same colour as the carriageway, a contrasting pavement material should be used for the crossing a short section either side (typically 3.0m) to differentiate.
Rule UH.2b - Pedestrian Comfort - Corner Radii	• No geometric requirements - refer to rule.
Rule UH.2c - Pedestrian and cycle crossings	**Pedestrian crossings:** • Absolute minimum 1.5m • Desirable minimum 2.0m **Cycle crossings:** • Absolute minimum 3.0m
Rule UH.3 - Cycling Comfort	• New developments MUST provide protection for cycling where traffic flows exceed 6,000 PCU per day (based on a 20mph speed limit / design speed) in line with LTN 1/20 Figure 4.1. • Where cycling in mixed traffic is appropriate carriageway lane widths of between 3.2m and 3.9m MUST not be used. See LTN 1/20 paragraph 7.2.5.
Rule UH.4 - Shared Use	• Along streets where the speed and volume of motor traffic exceeds the values given in the green cells of Table 4.1 of LTN 1/20 (see Rule UH.3) for mixed traffic and cycle lanes, protected space for cycling MUST be provided which is separate from the footway.

Rule	Geometric/ Measured Requirements
Rule UH.5a - Public transport accessibility	**Summary of bus design geometric parameters** Geometric Parameters Minimum carriageway width: 6.2m clear of parked cars Where minimum widths are used: Wing mirrors must not overhang pedestrian and / or cycle space Bends: Greater widths will be required on bends to accommodate vehicle swept paths Straight alignments: Will avoid the need for carriageway widening
Rule UH.5b - Bus stops	**Summary of bus stop parameters** Geometric Parameters Bus stop location: 400m maximum walking distance of all parts of a development Bus stop bypasses: Bus stop bypass arrangement, in accordance with Figure 6.30 of LTN 1/20 Bus stop configuration: It is highly desirable for the 'offside' stop to be approached about 30m before the nearside stop, in a 'tail to tail' configuration. Bus stop siting: Bus stops should not be placed within 15m of a side street to avoid hindering junction visibility. Bus lay-bys: Bus lay-bys should not be provided where the speed limit is 30mph or less

Rule	Geometric/ Measured Requirements
Rule FN.1 - Design Manual for Roads and Bridges (DMRB)	• No geometric requirements - refer to rule.
Rule FN.2 - Balancing movement and place functions	Designers will need to consider the width requirements of each mode, whether it is acceptable for modes to share the same space and the function of the street in place terms. Width requirements **Walking:** • 2m minimum. • Additional width should be provided between the footway and a heavily used carriageway, or adjacent to gathering places, such as schools and shops. • Further guidance on minimum footway widths is given in Inclusive Mobility. **Cycling:** • One way: 2m desirable minimum, 1.5m absolute minimum. • Two way: 3-4m desirable minimum, 2-3m absolute minimum, depending on flow (see LTN 1/20). • Shared Use: 3-4.5m desirable minimum, depending on flow (see LTN 1/20). **Bus Routes:** • Two way routes: 6.2 m minimum carriageway width, subject to tracking on bends **General Traffic:** • Principal streets carrying significant large vehicle flows – 6.2m minimum* • Streets carrying mainly light vehicles – 4.8m minimum* *width clear of parked cars
Rule FN.3 - Capacity	• No geometric requirements - refer to rule.

Access and Servicing Metrics

Rule	Geometric/ Measured Requirements
Access and Servicing	
Rule AC.1 - Access to Premises	• No geometric requirements - refer to rule.
Rule AC.2 - Direct Access	• Direct access to dwellings for motor vehicles should be provided where streets carry up to 10,000 vpd.
Rule AC.3 - Emergency Vehicle Access	The Building Regulation requirement B5 (2000) concerns 'Access and Facilities for the Fire Service'. Section 17, 'Vehicle Access', includes the following advice on access from the highway: • There should be a minimum carriageway width of 3.7m between kerbs. • There should be vehicle access for a pump appliance within 45m of single family houses. • There should be vehicle access for a pump appliance within 45m of every dwelling entrance for flats/maisonettes. • A vehicle access route may be a road or other route. • Fire service vehicles should not have to reverse more than 20m. As set out in MfS, The Association of Chief Fire Officers has expanded upon and clarified these requirements as follows: • A 3.7m carriageway (kerb to kerb) is required for operating space at the scene of a fire. Simply to reach a fire, the access route could be reduced to 2.75m over short distances, provided the pump appliance can get to within 45m of dwelling entrances. • If an authority or developer wishes to reduce the running carriageway width to below 3.7m, they should consult the local Fire Safety Officer.
Rule SE.1 - Refuse Vehicle Access	• Refuse collection and other service vehicles must be able to reach identified collection and delivery points within the site. • On-streets carrying less than 5000 vpd large vehicles may use the whole carriageway when turning and manoeuvring.

Rule	Geometric/ Measured Requirements
Rule PA.1 - On-street car parking	• On-street parking in adopted streets must be unallocated, and where parallel parking is provided individual bays should not be marked. This is a flexible and spatially efficient approach that reduces the overall need for spaces. • Parking should be fronted and overlooked by the built form, and a minimum 2m margin should be provided around all spaces. • On-street parking can be within visibility splays where traffic speeds and volumes are low, which should be most new streets, but should generally be avoided through design. Car clubs are supported by SCC as a means of promoting sustainable mobility, reducing vehicle emissions and dependency on the private car. Research shows that for every 1 car club space provided an average reduction of 18.5 private parking spaces can be achieved.
Rule PA.2 - EV Charging	The following provisions should be made for EV chargers in developments in Staffordshire: • For new housing developments with garages and off-street parking, each dwelling should have an on plot fast charge point, this should typically be wall mounted. • For commercial developments 20% of unallocated parking bays should have an active charge point and an additional 20% of spaces should be provided with cabling and supply. • Car club spaces should have one fast charging point per bay. **Location / siting of charging points:** • Charging points must be clearly demarcated for this use and positioned in line with on-street parking guidance. • Charging points must be located to provide access to the maximum number of cars. A space is seen as chargeable if it is within 5m of a charge point. • Charge points should be incorporated within kerb buildouts as to not reduce pavement width and can only be incorporated into bollards if they are placed on the edge of the pavement and carriageway to avoid trailing cables. • EV charging MUST be carefully located to prevent obstructions on the highway. • EV chargers must be located on the pavement and be set back a minimum of 450mm from the kerb edge. • For areas with high pedestrian footfall, chargers should be placed in a furniture zone. • EV chargers should have front or side facing charging cables to avoid obstruction of pavement during charging. • Below ground infrastructure should be consolidated into service ducts for ease of access and maintenance with a minimum 2m service margin. • EV chargers in a conservation area will require consultation with the appropriate conservation officer.

Rule	Geometric/ Measured Requirements

Suggested minimum cycle parking capacity for different types of land use

Rule PA.3 - Cycle parking

Land use type	Sub category	Short stay requirement (obvious, easily accessed and close to destination)	Long stay requirement (secure and ideally covered)
All	Parking for adapted cycles for disabled people	5% of total capacity co-located with disabled car parking.	5% of total capacity co-located with disabled car parking.
Retail	Small (<200m²)		1 per 100m²
	Medium (200-1,000m²)		1 per 200m²
	>1,000m²		1 per 500m²
Employment	Office/Finance (A2/B1)		1 per 200m²
	Industrial/Warehousing (B2/B8)		1 per 500m²
Leisure and Institutions	Leisure centres, assembly halls, hospitals and healthcare	Greatest of: 1 per 50m² or 1 per 30 seats/capacity	1 per 5 employees
	Educational Institutions	-	Separate provision for staff and students. Based on Travel Plan mode share targets, minimum: Staff: 1 per 20 staff Students; 1 per 10 students
Residential	All except sheltered/elderly housing or nursing homes	-	1 per bedroom
	Sheltered/elderly housing/ nursing homes	0.05 per residential unit	0.05 per bedroom
Public Transport Interchange	Standard stop	1 per 200 daily users	-
	Major interchange	1 per 200 daily users	-

Safety and Security Metrics

Rule	Geometric/ Measured Requirements
Safety and Security	
Rule RS.1 - Inclusive Design	• All designs MUST follow the best practice advice set out in 'Inclusive Mobility: A guide to best practice of access to pedestrian and transport infrastructure' (2021). • Appropriate tactile paving MUST be provided in accordance with 'Guidance on the Use of Tactile Paving Surfaces' (2021).
Rule RS.2 - 20mph average speeds	• Streets MUST be designed to achieve average speeds of no more than 20mph.
Rule RS.3 - 20mph speed limits	• Street networks within new residential developments MUST be subject to a 20mph speed limit.
Rule RS.4 - Road safety audits	• No geometric requirements - refer to rule.
Rule ST.1 - Straight streets	• No geometric requirements - refer to rule.
Rule ST.2 - Active Frontage	• No geometric requirements - refer to rule.
Rule ST.3 - Street Lighting	• No geometric requirements - refer to rule.

Utilities Metrics

Rule	Geometric/ Measured Requirements
Utilities	
Rule UT.1 - Utilities requirements	• No geometric requirements - refer to rule.s
Rule UT.2 - Dedicated service corridors	• Utilities MUST be laid as straight as possible and with a minimum depth of 350mm
Rule UT.3 - Utility access covers and chambers	• Access covers MUST be located outside of the carriageway as far as reasonably practicable, to minimise future pavement failure points within the carriageway paving. • Where access covers are required in the carriageway, they MUST be placed outside of the wheel tracks of vehicles and not introduce a hazard to two-wheeled users. • All access covers MUST be laid parallel to the nearest adjacent service strip, footway or carriageway edging and MUST be laid to the bond of any modular paving.
Rule UT.4 - Siting of access covers	• Utility Access Covers MUST not conflict with proposed kerb or channel lines and MUST not be located within areas of Tactile or Corduroy hazard warning paving. • Access Covers located in footways and cycleways MUST be pedestrian, cycle and wheelchair friendly such that they do not cause a hazard or inconvenience to these user groups. • Access Covers MUST not be located in the line of crossing point within the carriageway. • All Access Covers MUST be laid parallel to the nearest adjacent service strip, footway or carriageway edging and MUST be laid to the bond of any modular paving.

Lifespan Metrics

Rule	Geometric/ Measured Requirements
Lifespan	
Rule LS.1 - Management	• Areas intended to be 'Highways Maintainable at Public Expense' (HMPE) MUST follow the Staffordshire Highways Base Specification.
Rule LS.2 - Design life	• Streets MUST be designed to provide a minimum 40-year design life for all highway assets.
Rule LS.3 - Materials	• In most developments the permissible range of materials attracting no maintenance payment is set out in the Staffordshire Highways Base Specification. Materials outside of the Base Specification must not be used without prior departure agreement.
Rule LS.4 - Environmental Impact	• Street material selection MUST demonstrate low carbon considerations including locally sourced and recycled materials, and use of new technologies and design innovations.

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