



Hierarchy and Well-connected Streets

Street Hierarchy

2.1 Levels of multimodal movement will vary throughout a place. Higher levels of activity would normally be expected near shops, schools, community facilities and around major corridors, whereas lower levels of activity might occur in minor residential streets and less formal areas. The standard of highway infrastructure should reflect this. Wider corridors will be required to accommodate wider footways around schools and shops, to incorporate cycling facilities, bus routes, and frequent lorry movements.

2.2 The preparation of plans are required to comply with the policies set out in the National Planning Policy Framework (2019) which says development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and within neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

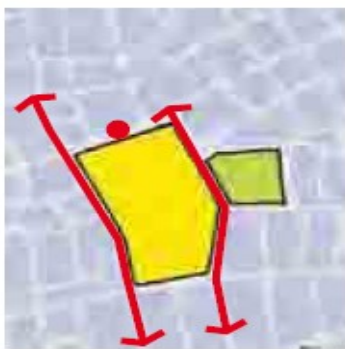
e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

Account should be taken of advice contained within *Planning Practice Guidance: Planning should promote safe, connected and efficient streets* (Paragraph: 008). The Urban Design Group's document *Building for a Healthy Life* principles are encouraged.

2.3 One of the main principles promoted by *Manual for Streets (MfS)* is to create networks of streets that provide permeability and connectivity to main destinations with a choice of routes. It is particularly important that the routes for walking and cycling are clear and direct and that bus routes do not become overly protracted. The overall hierarchy must therefore give priority to these modes of transport and consider the level of usage. The principle is to ensure that new development enhances the existing movement framework of an area rather than disrupting or severing it. *MfS* suggests that internal permeability is

important but that the area also needs to be properly connected with adjacent street networks because a development with poor links to the surrounding area creates an enclave which encourages movement to and from it by car rather than by other modes. MfS recommends that pedestrians and cyclists share streets with motor vehicles as this generally provides a more secure environment than connecting pathways as streets can more easily be designed to be overlooked with active frontages. Connected or permeable networks also lead to a more even spread of motor traffic throughout the area and so avoid the need for distributor roads with no frontage development. Furthermore, the avoidance of cul-de-sacs reduces the concentration of traffic on a smaller number of dwellings, negates the need for turning heads which are wasteful in land terms and lead to additional vehicle travel and emissions, particularly by service vehicles.

● Bus stop ⇄ Principal routes ⇄ Internal streets



Consider how best the site can be connected with nearby main routes and public transport facilities.

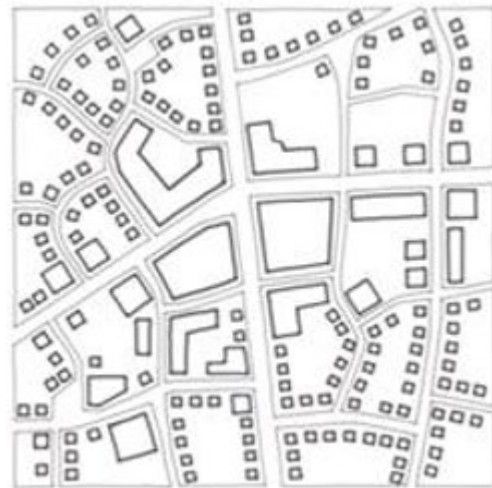


The typical cul-de-sac response creates an introverted layout which fails to integrate with its surroundings.



A more pedestrian friendly approach that integrates with the surrounding community. It links existing and proposed streets and provides direct routes to bus stops.

Integrating new development into the existing urban fabric is essential



Dispersed and car-dependent versus traditional, compact and walkable layout

Well-connected streets

2.4 New residential streets should be designed to form part of a well-connected street network (block structure). Well-connected street networks have significant advantages as:

- a shorter route can be used to cover a given area;
- reversing may be avoided altogether;

- they minimise land-take by avoiding the need for wasteful turning areas at the ends of cul-de-sacs;
- they encourage more people to walk and cycle to local destinations, improving their health while reducing motor traffic, energy use and pollution;
- more people on the streets leads to improved personal security and road safety. Research shows that the presence of pedestrians on streets causes drivers to travel more slowly;
- for utility companies – they provide space for service provision and alternative service routes;
- for highway and utility maintenance operations - traffic can be routed around a point closure if it is necessary to excavate the carriageway for maintenance.

2.5 Developers should aim to provide multiple points of vehicular access onto the wider highway network where land availability and where the external road network permits. These access points should be to adoptable standards and available for general public use. Where multiple points of vehicular access are not provided, the reasons for not doing so must be justified within the submission.

2.6 Cul-de-sacs may provide the only practical solution for developing awkward sites where the site is linear in nature, has difficult topography, boundary or other constraints and where through routes are not practical. Wherever possible cul-de-sacs should be avoided. However, it is accepted that they do have a role to play in some locations. Where this is the case, the opportunity to provide alternative more direct pedestrian and cycle routes should be explored in order to form a walkable neighbourhood. This would be characterised by having a range of facilities within 10 minutes' (up to about 800 m) walk.

2.7 If there is a likelihood that adjacent land will come forward that can be practically served through the development in the future, suitable ransom free connections should be provided to maintain and enhance the movement framework.

Bus Routes

2.8 Larger developments must make provision for an efficient bus routing strategy as identified by way of Transport Assessment. We would support a bus route that serves the greatest majority of dwellings well (in excess of 80%) rather than one that serves all homes poorly with an indirect service. Affordable housing, and higher-density residential development should all be located within 400m of a bus stop, and preferably closer.

Emergency Access

2.9 We will not normally seek emergency accesses because of:

- enforcement problems arising from their misuse;
- potential difficulties that could be encountered by the emergency services;
- maintenance issues and vandalism of access-control equipment; and
- general crime and anti-social behaviour problems.

2.10 Where there are valid reasons why at least two points of access cannot be achieved, and where the development proposal is otherwise acceptable to us, we may be prepared to consider an emergency access as long as:

- the emergency link is also of strategic benefit for pedestrians and cyclists;
- highway safety is not compromised and the access is not likely be a source of crime or anti-social behaviour problems;
- there are appropriate means of controlling its use;

- you have fully consulted the emergency services and the proposals are acceptable to them;
- the access is designed to accommodate safely all vehicles likely to use it; and
- long-term maintenance responsibilities are clearly defined and secured;
- A general width of 3.7m (minimum 3.1m at gates) is achievable, there is sufficient turning space for a fire appliance to manoeuvre, there is a minimum height clearance of 4.0m, and the weight carrying capacity is a minimum of 12.5 tonnes and 17 tonnes over structures (see Building Regulations – Fire Safety).

[End]