



Residential Design Guide

Consultation Draft
February 2007



Foreword



The contribution that high quality design can make to urban regeneration is now widely recognised. Good design can bring economic, social and environmental benefits; add to quality of life; attract business investment; and reinforce civic pride. In partnership with Tibbalds, Rochdale Metropolitan Borough Council and the Oldham and Rochdale Housing Market Renewal Pathfinder, we have prepared a series of documents that set out the key principles of urban design and provide guidance on the creation of high quality buildings and places.

Its joint preparation has meant that we have been able to pool resources, knowledge and explore design solutions to the problems we struggle with in different parts of Rochdale and Oldham. The draft guidance is now out for consultation and we would welcome your views on its content, usability and appearance. We want to get it right, so tell us if we've missed an opportunity or got it wrong. We want this to be your guidance, not just ours.

Councillor Hibbert
Oldham Metropolitan Borough Council



This guide is a great example of how Councils and their partner agencies can work together to ensure that through quality design we can protect and improve our towns and villages. We have listened to what all the stakeholders have said and we have focussed on those areas where design guidance can make a real difference, i.e. the design of new residential development and the public realm. With this guide we aim to bring in a local agenda that protects, enhances and sustains local communities and their distinct characters. The design guidance provides us with a vital tool to help developers and investors deliver what our local communities want and it will allow Planning Officers and Planning Committees to judge applications against the principles set out in this guidance.

Councillor Hobhouse
Rochdale Metropolitan Borough Council



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1 Introduction



This Residential Design Guide forms one part of a series of detailed Design Guides produced jointly by Oldham Metropolitan Borough Council, Rochdale Metropolitan Borough Council, and the Oldham Rochdale Partners In Action Housing Market Renewal. Its aim is to assist all those involved in the development process (including architects, designers, public and private sector developers, house builders, planners and engineers) design and implement high quality residential development.

The Boroughs of Rochdale and Oldham are set to undergo radical change in the next 10-20 years, and there will be a significant amount of new residential development. This is an opportunity to transform the quality of development within the area.

The detailed Design Guides all sit beneath the 'umbrella' of the Rochdale and Oldham Urban Design Guide, which sets design principles for all types of development that expand on policies set out in the two Borough's Developments Plans. The overall Urban Design Guide sets out ten urban design principles, and these are listed opposite, and expanded upon in this guide.

The Boroughs of Rochdale and Oldham intend to adopt the series of urban design guides as Supplementary Planning Documents (SPD). This formal adoption process requires consultation with local stakeholders, and this document is a Draft for Consultation. It may be amended in response to consultation before being adopted by the two Boroughs.

This Residential Design Guide is structured in five parts:

- Response to site and context;
- Layout;
- Public realm design;
- Building design; and
- Bringing it all together.





This Guide aims to assist all those involved in the development process design and implement high quality residential developments. It does not seek to impose a particular architectural style: all the developments pictured above and left are of high quality, yet their appearance is very different.

The principles

- **Character**
Enhancing identity and sense of place
- **Safety and inclusion**
Ensuring places are safe, secure and welcoming for all
- **Diversity**
Providing variety and choice
- **Ease of movement**
Ensuring places that are easy to get to and move through
- **Legibility**
Ensuring places can be easily understood
- **Adaptability**
Anticipating the need for change
- **Sustainability**
Minimise the impact on our environment
- **Good streets and spaces**
Creating places with attractive outdoor places
- **Good sustainable buildings**
Constructing environmentally friendly buildings
- **Designing for future maintenance**
Designing buildings and spaces so that their quality can be maintained over time

2 Response to site and context



Introduction

Good quality development is sensitive to its site and the surrounding area. This does not mean that it tries to replicate what is around it. Rather, it means that the design responds thoughtfully to a careful, thorough understanding of its context. Such an approach tends to result in development that has a sense of 'belonging' to the area, and avoids the blandness of 'standard' approaches that could be anywhere in the country.

It is important to develop an understanding of what makes the character of the local context. Design decisions can then be made on what aspects of the local character may be used to influence and inform the new development:

- Should the new development be designed to deliberately contrast with the characteristics of the local area? This can be an appropriate approach where the local area has a weak or negative character.
- Should the new development be designed to closely follow the design characteristics of the local area? This may be the right approach in an area with a clear, positive character such as a conservation area.
- Is there an approach somewhere between these two extremes, where positive aspects of the local place can be combined with new innovative designs?

The overall Urban Design Guide sets out the requirement that, for ALL types of development, the design process must include:

- an analysis of the surrounding context, and a clear demonstration of how the context has influenced the design of the proposed development; and
- an analysis of the site constraints and opportunities, drawing out how they influence design decisions.



Understanding the context

The next few pages provide an illustration of how analysis of the wider context and the site itself should be undertaken. A hypothetical inner urban site is used to help illustrate the analysis. It is a simplified approach, and does not include *all* the issues that a design team should investigate (eg traffic and ground conditions are not covered).

The analysis looks at:

- the character of the context; and
- routes and destinations in the wider area.

Character of the context

The level of detail to which analysis of the context is taken will need to relate to the design approach being taken – there is little point providing an in-depth analysis of poor quality townscape and buildings with which the development will be designed to contrast. On the other hand, development within a conservation area will require a more detailed approach that develops a thorough understanding of the local context.

The following themes give a guide to the range of topics that should be covered in an analysis of the character of the surrounding context:

- layout of streets and spaces;
- block size and shape;
- streets and other routes;
- relationship of buildings to streets;
- relationship of buildings and streets to typography;
- scale and massing of buildings;
- building types; and
- materials and detailed design.

Diagram setting out summary of character of the context



Arterial Road: Traffic dominated area -poor pedestrian environment. Cuts the development site off from the area on the other side of the road.



Residential area with mixed character. Poor environment in places. On the whole, a weak rather than negative character.











Victorian Terraces: Strong character of red brick terraced housing, tight grid of streets. However, tends to be perceived as low quality - lack of open space and on-street parking are problems.



Modern Residential: turns its back on the surrounding area. Character is not distinctive - could be anywhere.

Key

	Victorian terraces		School
	Arterial road		Focus of community activity
	Modern residential		Neighbourhood park
	Mixed residential character		Site boundary

Layout of streets and spaces

- Is the local context made up of traditional, regular, formal grids?
- Is it a looser more informal network of streets?
- Is it not a grid at all, but a series of culs-de-sac?
- How well does the layout accommodate other principles in this document – e.g. connecting places together, creating a safe environment?

Block size

- How big are the blocks that make up the surrounding area?
- How well do they allow connections between places to be made?

Streets and other routes

- Are all the streets in the surrounding area the same as one another – i.e. same dimensions, same materials? Is their character positive or negative?
- Or is there a variety of street types? How do these vary? Does their variety have a positive character?
- Are there trees or other landscape within the street?
- Are there other sorts of routes, such as back alleys or pedestrian-only links? Are these good or bad in terms of security and connecting places together? Are they something that should be echoed in the new development?

Relationship of buildings to street

- Where are buildings located in relation to the street – at the back edge of pavement? Set back behind a large front garden? Is this relationship consistent along streets or does it vary?
- Where there are front gardens, what is the edge treatment – walls, railings, hedges?

Scale and massing of buildings

- How high are buildings in the surrounding area?
- Is their mass a result of a simple building form, or many different building elements combined?
- What sort of roofs do buildings have?
- What is the rhythm of building plots? Is it regular or irregular?
- How much of its plot does each building cover (i.e.

how does the 'footprint' of the building relate to the open space within its plot?

Relationship of buildings and streets to topography

- How are streets laid out in response to topography – do they ignore the slope? contour around? run directly up the slope?
- How do buildings respond to slopes – stepping up? sloping eaves lines? ignoring it?
- Does the topography open up long views to the site? How should new development respond to these?

Building types

- Does one type of building (e.g. two storey terrace) dominate the area? Or is there more of a mix?
- Materials and detailed design
- What materials are used in the local area – e.g. stone, brick, render? What colours are typical?
- What are the windows like? Are their proportions vertical or horizontal? Are bay windows typical? Are there dormer windows? Where are doorways located? How are they designed?
- Are the buildings very plain with little detailing? Or is there a lot of intricate detail?

In assessing the character of the area, it is important that the elements set out above are not only described, but judgements made about whether and how they should influence the new development. For example, for this site the character influences from the surrounding area may be summarised as:

- the strongest character is the redbrick Victorian terraces. However, there are some negative associations with these. The design should take the positive elements (the strong street pattern, with continuous buildings lining the streets) but modify them to create a new less regimented environment with more green space; and
- the remaining areas around the site have little to offer in terms of positive character influences. The approach of creating a new character is therefore appropriate.

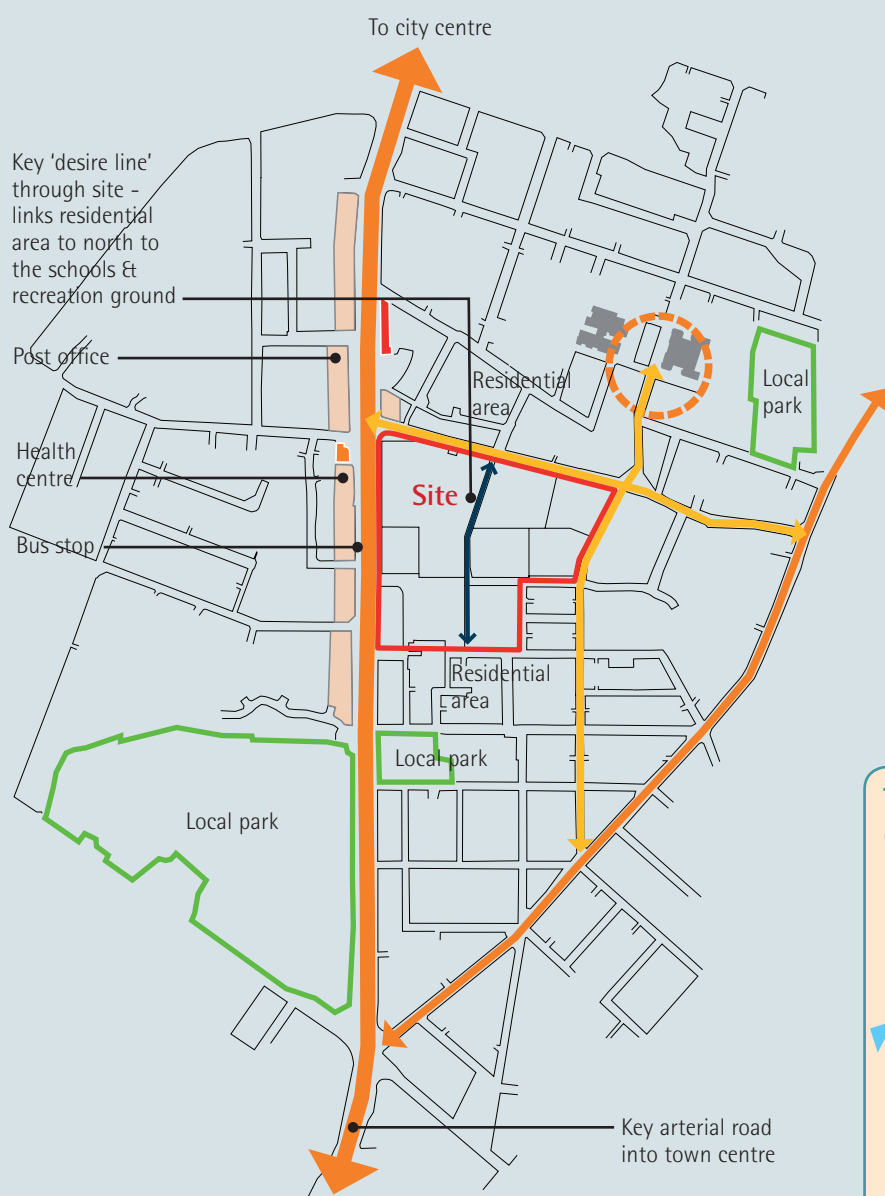
Routes and destinations

Understanding the context is not just about character: it is also about understanding the relationship of the site to the local facilities that residents will need in their day-to-day lives. There is an opportunity for urban infill developments to improve the wider urban area by providing connections to facilities such as schools, shops, places of worship and transport.

The analysis, below, identifies key destinations around the illustrative site and existing routes to them. This helps the designer identify opportunities for connecting the new development to the wider area.

An analysis of routes and destinations should form part of the analysis of the context of all sites.

The site context



Key

-  Local shops
-  School
-  Focus of community activities
-  Neighbourhood parks
-  Local park
-  Main roads
-  Important local route
-  Desire line through site linking towards schools

The Strategic Context





Understanding the site

Developers must undertake an analysis of the site's constraints and opportunities, and explain how they have influenced the proposed development in a Design and Access Statement. This applies to all sites, whatever their size and location, except for individual householder applications.

The following themes give a guide to the topics that should be covered in an urban design analysis of the site:

- Existing buildings and other features
- Existing landscape and ecology
- Topography, views and microclimate
- Edge Conditions
- Access

Existing buildings and other features

- Are there existing buildings on the site that will be retained and, if necessary, refurbished?
- What is their character? Should it influence the remainder of the development?
- What constraints do they bring – e.g. windows requiring space adjacent to the building?
- Are there features of archaeological or historic interest? What issues do they raise? Can they be integrated into the development?

Existing landscape and ecology

- What landscape is there on the site and what is its value?
- Can it be retained and integrated into the new development?
- Is there any important ecology on the site, and what constraints does it impose?
- Are there water features on the site? How can these be accommodated within the development?

Topography, views and microclimate

- Does the site slope? Are there significant changes in level such as embankments or retaining walls? How should development respond to these?
- Are there long views to the site? How should new development respond to these?

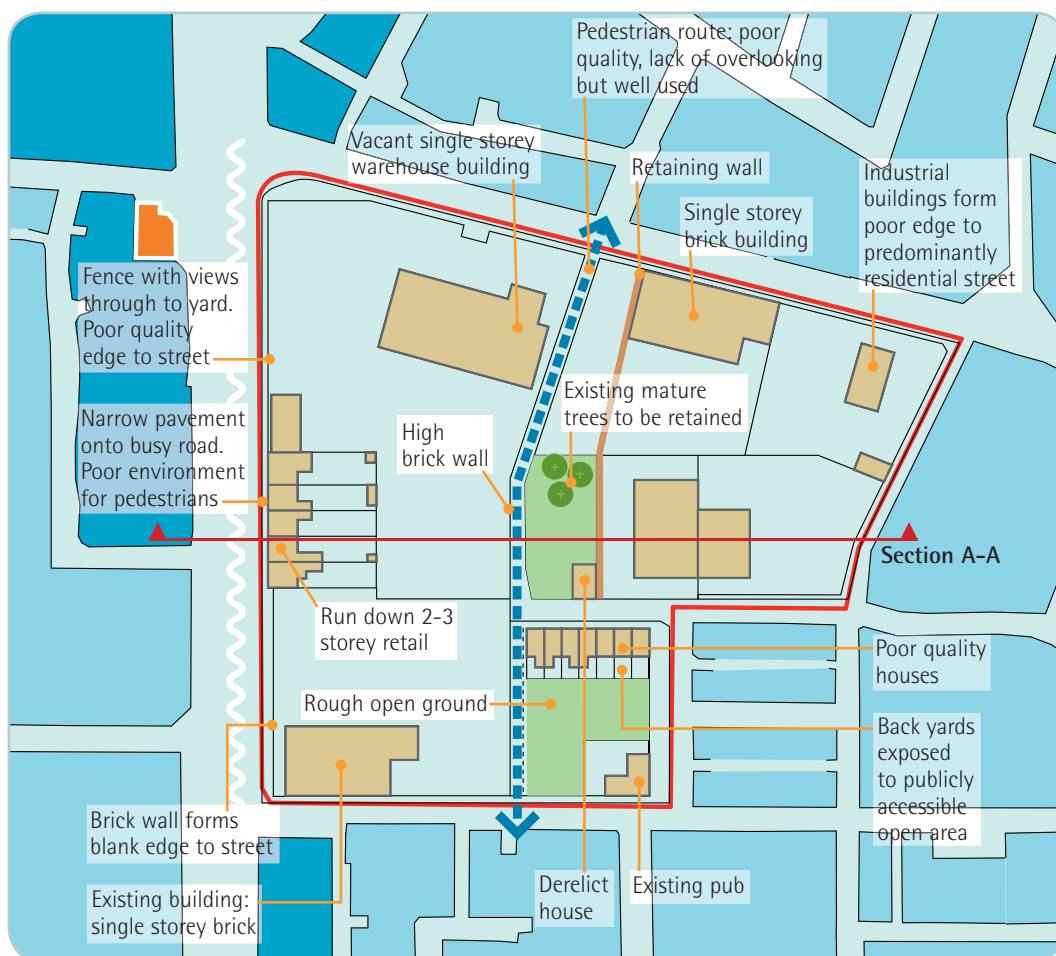
- What are the views out of the site like? Can development be oriented to make the most of attractive views?
- Is the site exposed to prevailing winds? Is it overshadowed? Where are the sunniest parts of the site? How should development respond?

Edge Conditions

- Are there neighbouring buildings where privacy needs to be respected?
- Are there unattractive neighbouring uses that the new development needs to be screened from?
- Are there existing streets and spaces adjacent to the site to which new development should relate?
- Are there noise problems from road traffic, railways or adjoining buildings?
- Is there neighbouring vegetation that may be affected by the redevelopment of the site?

Access

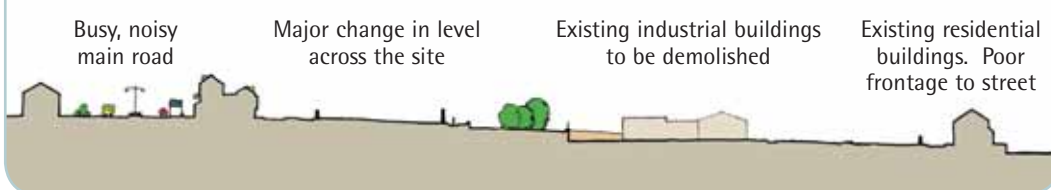
- Where are the existing and potential vehicular, cycle and pedestrian access points to the site?
- Are there existing routes across the site? Can these be accommodated in the new development?



Key

- predominantly 2 storeys buildings
- predominantly 3 & 4 storeys buildings
- important destination
- existing buildings on site
- existing open space
- existing trees
- noisy road need to protect new development from traffic noise
- existing pedestrian desire line
- site boundary

Sketch section A-A



1 The surrounding area does not give much positive design inspiration. However, there is an opportunity to relate to local character through the use of traditional materials such as red brick.

2 There is an opportunity for new development to address the existing street.

3 The existing desire line across the site should be retained as a pedestrian and cycle link if possible.

3 Layout



Introduction

The layout of streets, spaces and buildings is the most important factor influencing the character and quality of new residential development. If the layout has problems, even high quality building design will not be able to turn the scheme around and make it into a good place.

This section begins by looking at the lessons on layout that can be learned from Oldham and Rochdale. It then goes on to set out principles for achieving the following objectives:

- making connections;
- creating a safe and secure place;
- creating a clear structure; and
- integrating sustainability.

This guidance should be read in conjunction not only with local planning policies, but also with:

- By Design: Urban Design In The Planning System - Towards Better Practice (2000); and
- Better Places To Live By Design (2001).



Learning from Rochdale & Oldham

Rochdale and Oldham provide useful lessons in how to lay out streets, spaces and buildings in residential areas. There are many different types of layout, and we look at three main types in this document:

- traditional networks – regular and irregular;
- suburban culs-de-sac; and
- experimental layouts such as Radburn.

Traditional networks

Traditional structures are often very simple grids of streets connected together. These grids may be very regular, creating rectangular or square blocks for buildings; or they may be irregular, creating a variety of block shapes for buildings. The character of both of these block types can be dramatically altered by a hilly topography, such as that found in Rochdale and Oldham. Smaller settlements may consist more of a 'web' and less of a grid of streets.

The character of buildings will modify the character of the blocks – formal designs may reduce the informality of an irregular layout; informal cottages can soften a regular grid. However, successful urban design tends to marry buildings, landscape and structure together to create a coherent character – e.g. irregular grid structure with informal buildings and natural landscape; formal grid with grand buildings and formal boulevard tree planting, for example.

These traditional networks of streets are easy for people to understand and to move around, as:

- it is usually obvious which streets are more important and which are less so;
- places are well connected to one another, giving convenient and direct routes especially for pedestrians and cyclists); and
- houses front onto the streets, so the streets feel safe and it is easy (as a visitor) to find the front door.

Culs-de-sac

The housing estates of recent decades have often been based on a suburban cul-de-sac layout. Whilst the culs-de-sac themselves can result in quiet, attractive residential environments, layouts dominated by them have wider problems in that:

- There are few connections between the different streets. This results in very long walks for pedestrians, and discourages people to move about on foot.
- Because of this, the car becomes more appealing. However, because only a few streets provide the 'connectors' all traffic is forced onto these limited streets – resulting in car-dominated streets. Buildings often turn their back on these connector streets – increasing their unfriendliness for pedestrians.

- Although there is a range of streets types, they tend to look very similar to one another. Thus, it can be very difficult to tell where you are within the development.

These problems do not mean that culs-de-sac should not be developed – however, they should not dominate a place

Irregular traditional grid



Regular traditional grid



Cul-de-sac layout



Experimental layouts

With ownership of the private car growing in the 1960s, designers began to explore layouts that could work well for both cars and residents. These included the 'Radburn' estate, where routes for cars and pedestrians are separated. The focus was intended to be on people, with houses turned away from the street to overlook public open space and footpaths. Other layouts include tower blocks and medium-rise flats in large areas of open space. These experimental layouts have a number of problems:

- Vehicles and pedestrians have separate movement networks, resulting in a confusing web of routes with too many connections for pedestrians
- There are too many open spaces with little or no function / unattractive areas of grass
- There is confusion between the fronts and backs of houses in many locations, resulting in open spaces not being overlooked and exposed / vulnerable back gardens

Experimental layout



Left: Houses in Radburn layouts tend not to front onto public spaces, as in more traditional housing layouts.

Right: This Radburn estate in Ardwick is being redeveloped to solve its problems of confusing fronts and backs of buildings, and lack of overlooking of streets and spaces.

The Radburn layout in particular is a useful reminder that we need to consider the quality of open space and the usefulness of connections. More of both is not necessarily better.

The layout of new residential developments should take on the best from these examples, and avoid the worst. In particular:

- streets should be connected together, providing pedestrians especially with direct routes between places;
- streets should have different characters that reflect their importance. This helps people to find their way around.
- more connections are not necessarily better than fewer - it is their quality and usefulness that is important;
- ensure that building fronts overlook streets and spaces, and avoid back gardens onto public space;
- design open spaces to have a clear function. Avoid 'left over' space that has not been designed in from the outset.

The remainder of this section explores these themes, expanding them to provide detailed design principles.





Making connections

The principles for making connections are:

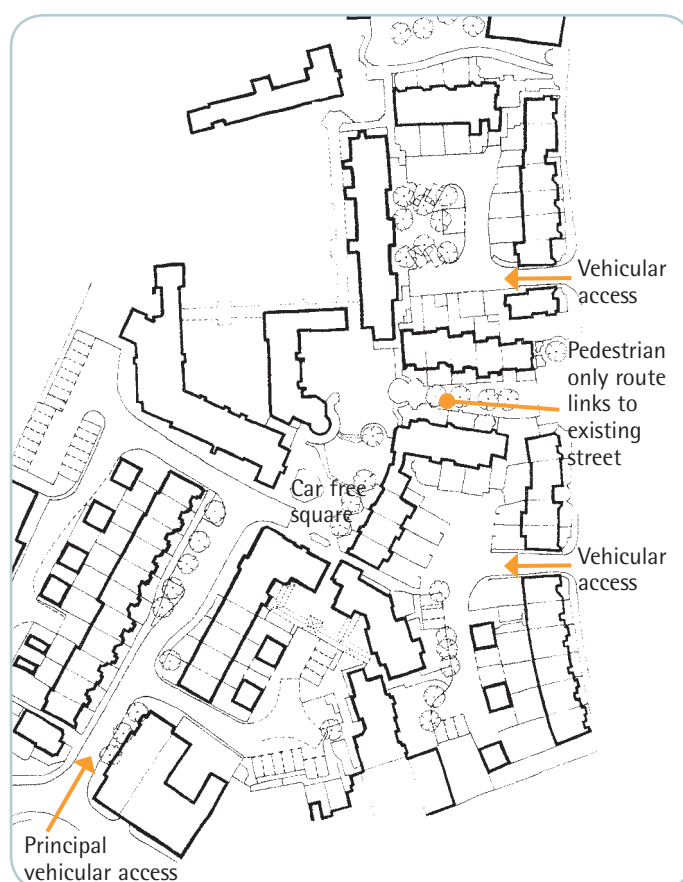
- New developments should connect into existing routes around the site, and not turn their back on them;
- Where there are existing desire lines across a site, these should be integrated into the new development; and
- Routes within the site should connect with the places that people want to go to outside of the site area - for example, schools, shops, open spaces, places of worship.

- New routes may include pedestrian and cycle only paths and open spaces as well as traditional streets, where these are appropriate to the development. A good example is shown below, where a car free square is linked to the existing street network via a pedestrian-only route overlooked by the fronts of buildings.



Typical cul-de-sac layout that fails to connect into neighbouring areas.

Below: Whilst this development has provided a connection to the local area, it is not well designed and is not overlooked by building fronts.



This development in Yorkshire connects well to the surrounding area, especially for pedestrians. Below: the pedestrian-only route is carefully designed into the layout.





Creating a safe and secure place

There are two principles that are key to creating safe and secure residential environments:

- Making sure that public places are overlooked by the fronts of buildings; and
- Distinguishing clearly between public and private open space, so that there is no confusion.

These principles are closely related to one another. Consistently organising buildings so that they front onto and overlook streets and spaces results in a building form known as the 'perimeter block'.

At the same time as overlooking the street, this arrangement uses the buildings as a 'barrier' between the public street at the front and the private areas to the rear of the buildings. Thus, there is a clear distinction between where members of the public may go and where they are intruding on private space.



Rear boundaries onto public space are vulnerable to criminals, and are an unattractive edge to the space or street.



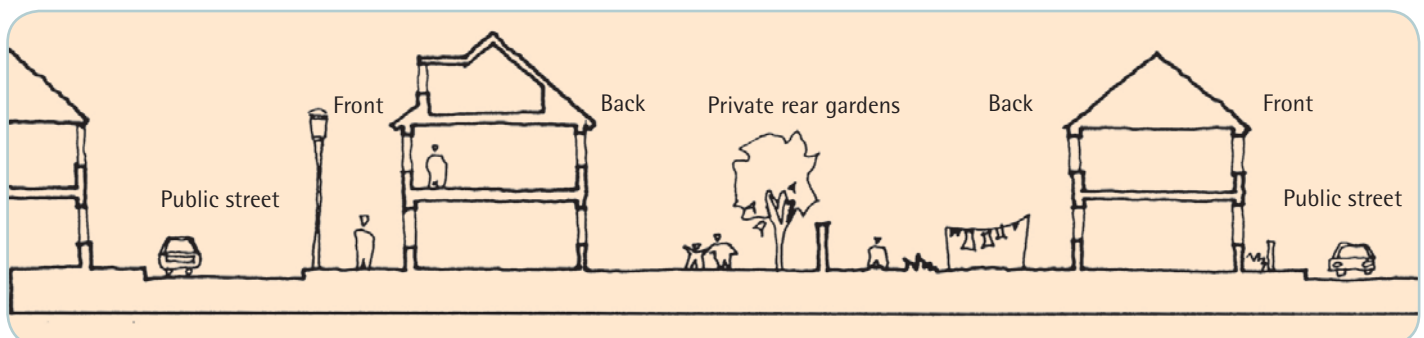
This courtyard is well overlooked by buildings, and the planting areas mean that residents have a reason to linger in the courtyard and so bring life to it.



A much less successful courtyard: overlooking is minimal and series of garage doors and gates is forbidding.



Traditional streets have a clear distinction between the public street and the private space that belongs to the houses.



This arrangement of perimeter blocks and fronts and backs is found in traditional forms of development, and has endured well over the years as our lifestyles have changed. However, the need to positively design parked cars into residential development, means that we must think beyond simple perimeter blocks to make environments that work.

Rear parking courtyards have increasingly become a popular way of accommodating the car. However, these straddle the 'public-private' divide and need to be very carefully designed if they are to be safe.

'Better Places to Live By Design' notes that courtyards which work well have three main characteristics:

- they are not car parks but places which have parking in them;
- they are overlooked by adjoining houses, or by buildings within the parking area;
- they normally contain at most 10 parking spaces. If there are more space the courtyard layout should be broken up.

Thinking of courtyards as attractive places to be in their own right is critical in achieving good design. Well considered hard and soft landscape and lighting are essential to creating safe, inviting spaces.

Traditional perimeter block form



- Cars are parked on street: good overlooking from dwellings but tend to overwhelm the street
- Corner buildings tend to have blank gable ends onto the street
- Alleys provide access to rear gardens: security often a problem as they are not overlooked
- Dwellings face onto and overlook surrounding street

Perimeter block designed to provide car parking within it



- View into courtyard ends on dwelling - showing passers-by that it is not just a place for cars
- Dwellings within courtyard provide overlooking, so improving security
- Dwellings face onto and overlook surrounding street
- Buildings designed to turn corner and provide overlooking of courtyard entrance
- Courtyard provides convenient access to rear gardens, so that bins and lawn mowers do not have to be taken through house



Creating a clear structure

Over the past few decades, housing development has tended to result in bland places where everything looks the same – houses look similar to one another, and all the streets have the same character. This makes for a confusing place, where it is easy to get lost and disoriented. Good developments create identity and character by designing streets and open spaces as places in their own right – not just a means of getting from A to B.

Good developments incorporate the following principles:

- streets and spaces are designed as places in their own right, not just a means of getting from A to B;
- there is a clear structure of streets and spaces. That is, it is obvious which are the more important streets that connect places together and are used by many people, and which are the more private, quieter streets that are mostly used by the people living on them. This goes hand-in-hand with creating a strong, positive character;
- the clear structure incorporates:
 - a hierarchy of different street types;
 - new focal points such as squares and green spaces; and
 - views, especially towards existing landmarks.

Further guidance on street character is provided in Section 4: Public Realm Design

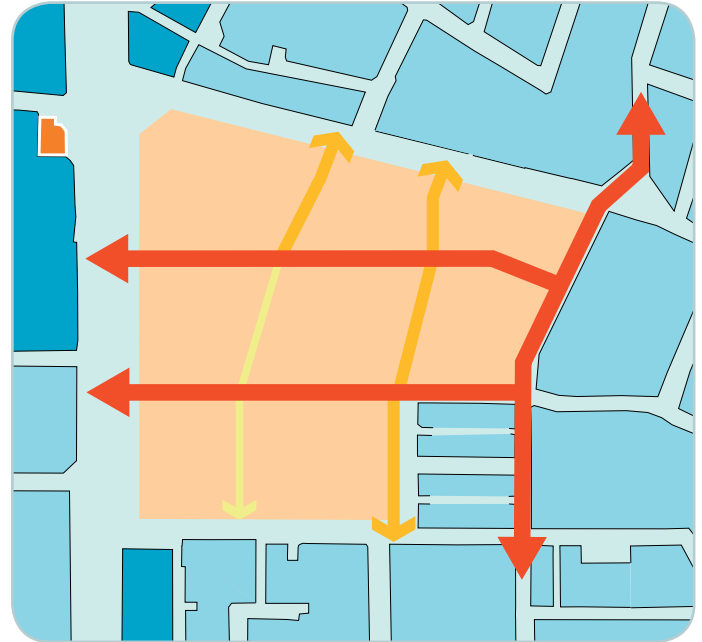






Diagram showing clear structure of streets.

Key

	development site
	main street
	secondary street
	predominantly pedestrian route



Integrating Sustainability

A sustainable approach to design is critical if we are to create environments that endure over time. Many sustainable design principles dovetail with urban design principles - e.g. connecting a new development to the wider area not only ensures that it 'belongs' to the place, it can also help to encourage walking and reduce reliance on the car. At the stage of designing the site layout, the following sustainable principles should be integrated into the design:

- making connections to the wider area, especially those that promote walking, cycling and use of public transport in preference to the car;
- retention and integration of existing landscape on the site, especially if it is of ecological value;
- retention and conversion of existing buildings where feasible;

- orienting the layout to provide shelter from prevailing winds and to maximise benefits from solar gain;
- the use of sustainable urban drainage systems (SUDS) to reduce the impact of runoff, recharge natural ground water (where appropriate) and provide wildlife habitats; and
- making efficient use of land, with minimum residential densities of 30 dwellings per hectare (dph) and higher densities in more accessible locations, and/or locations where higher densities are appropriate to the character of the surrounding area.

Developers should note that higher densities that compromise the principles set out in this guide by being inappropriate to their context will not be permitted.



1 Biodiversity can be encouraged even in urban environments such as Greenwich, above.

2 Make connections to the wider area that promote walking and cycling, and integrate cycle parking facilities.



3 Drainage solutions should be integrated into the layout from the earliest stage. SUDS features can take many forms, and work with both urban and rural developments.

