Oldham and Rochdale

5 Existing streets and spaces: Design principles

This section sets out general design principles for improving streets and spaces in the boroughs. The principles aim to achieve the following objectives:

- improving existing streets;
- improving the pedestrian experience;
- reducing clutter;
- improving spaces;
- creating appropriate home zones; and
- working with local people.

Applying the design guidance will vary according to the nature of the street or space. For example:

- reducing clutter is a major issue for arterial roads and local distributor roads (where there are many signs, traffic lights, bus stops and so on) but a less significant challenge for residential streets; and
- creating a pedestrian-friendly environment by slowing down cars is a major issue for residential streets, but priorities are different for arterials routes where maintaining traffic flows is a key concern.

All road improvements must be safety audited by the Highway Authority at three stages: at outline design; at detailed design and after construction.

Improving existing streets

Making improvements to roads, particularly busy arterial and local distributor roads is complex, as the land along them is owned by many different organisations and there are the practicalities of carrying large amounts of traffic. Changes that result in the loss of road capacity (such as widening pavements) may not be possible. There are two broad strategies for improving these routes:

- encouraging developers of individual sites to design schemes to enhance the street; and
- public body led schemes for the improvement of entire road corridors through traffic calming, landscape and streetscape improvement schemes.

Individual development sites

Where individual sites come forward for development, the Local Planning and Highway Authorities will discuss the proposals with the applicant and encourage development that embodies the following principles:

- new buildings should be designed to front onto the route, so that windows and doors provide overlooking and improve the safety of the street;
- the scale of development should be appropriate to the scale of the street, so that it provides a reasonable sense of enclosure;
- car parking should be located away from the road frontage, so as to minimise the visual impact of parked cars on the street;
- strong landscaping may be designed into the frontage of the development, to provide some separation from the noise of traffic and to provide welcome greenery. This is particularly appropriate for residential development on busy streets. However, it must give the street a positive character and not be designed solely as a means of keeping passers-by away form the building;
- where appropriate, buildings should contain a mix of uses (e.g. retail on the ground floor with residential above) to bring life to the street throughout the day and evening; and
- where rear or side boundaries are located onto the road, they should be designed to be robust (e.g. walls, railings, rather than timber fences) and high quality.

1. Blank building facade used as unsightly advertising space.
2. Fences and hoardings create low-value appearances and create an unattractive and intimidating streetscape.
3. New development fronts onto and overlooks street.
4. New canopies help to tie together variety of existing retail units, creating a more coherent appearance.
5. Use of climbing plants softens blank facades and provides seasonal interest.
6. Widened pavement relates to new development, creating car-free frontage and opportunity for activities to spill outside.

Before

After

A. Existing building presents a negative blank facade onto the streets.
B. Existing buildings are low in relation to the width of the street, contributing to the perception of dominance of traffic.
C. Narrow pavements and lack of designated crossing points make pedestrians feel vulnerable and dominated by traffic.
D. New development fronts onto the street, providing overlooking and a welcoming facade
E. Small setback allows pavement width to be increased along new building frontage, improving the pedestrian experience and providing space for tree planting.

Before

After

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Improving entire corridors and gateways

Gateways are the main entrance points into the Borough's towns and are usually related to road or rail. Corridors are the main transport or green corridors which provide existing or potential movement routes connecting communities and connecting towns and countryside. Gateways and corridors therefore have a role to play in assisting regeneration and urban renewal. Critically, the appearance of gateways and corridors affect the perception and image of the Borough. A comprehensive approach to regeneration and improvement is therefore needed and Gateway sites should be a focus for landmark developments, major landscaping improvements and public art projects. Unattractive gateways should be a target for intervention and detailed guidance. Corridors will be the focus for development and regeneration opportunities. As the main movement corridors, they are also visible and suffer from environmental problems. It will therefore be important that development and detailed guidance for development aims for high quality design and the incorporation of environmental improvement within schemes.

Street scene investment should be planned alongside highway investment in an integrated way. Such an approach is required in designing gateways and corridors proposals, particularly in town centres along Quality Bus Corridors. The design of interchanges also provides an excellent opportunity to improve the public realm. Opportunities should be taken to make new interchanges, including Metrolink stops, examples of excellence in architecture that will add to the enjoyment of using public transport and help raise the quality of design overall.

Encouraging the owners of individual sites along road corridors to enhance or redevelop their sites can have a significant effect on the perceived quality of the street. However, any such strategy can - due to fragmented land ownership - lead only to piecemeal improvements. To secure meaningful improvements, Public Bodies need to also develop and implement strategies for improving whole road corridors.

Such strategies will require a clear understanding of the technical constraints and opportunities affecting each road corridor. These are likely to include:

- traffic capacity;
- public transport requirements;
- location of utilities;
- location of uses such as schools that attract particular types of movement;
- land ownership;
- lighting requirements;
- safety considerations; and
- adoption issues, particularly regarding materials, street furniture and maintenance.

Thus, in order to develop a feasible strategy, a multi-disciplinary team of engineers, landscape architects and others will be required. The overall aim of any strategy should be to transform the character of the street from a negative to a positive. The team will therefore need to undertake an analysis of the existing character of the street, define its problems and clearly set out the character that the team is aiming to create. In improving the character of the street, the two principles will be key: that is, improving the pedestrian experience and reducing clutter.

Whilst the aim of improvements should be to improve significant lengths of the street in a consistent way, there is also an opportunity to make more focused interventions at key points along the road corridors - e.g. where there is a transition (or gateway) between different areas; an intersection with another major road; or the opportunity to enhance a space.

1. Simple repetition of planting and lighting creates distinctive 'boulevard' character.
2. Barriers removed and vehicular traffic and footway divided by low planting strips, offering both safety and security.
3. Improved materials to footway / cycleway.
4. Conveniently located pedestrian crossings create direct routes between destinations.
5. New boundary treatment better defines public and private space.

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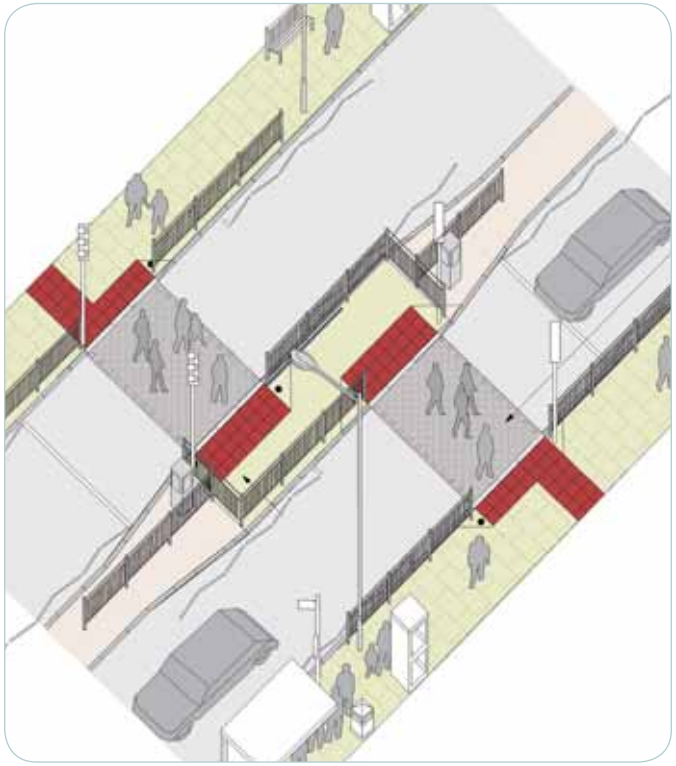
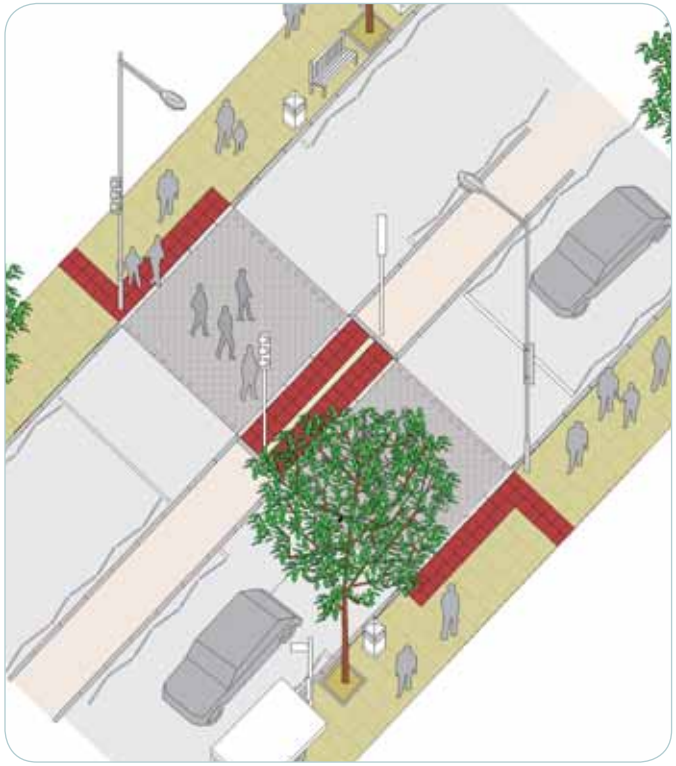
Improving the pedestrian experience

Arterial and local distributor roads need to carry large amounts of traffic. However, this does not mean that the needs of pedestrians should be forgotten as improving the pedestrian experience of arterial roads can significantly enhance their image. Town centre streets, although less busy than arterial roads, similarly need to cater for the needs of the pedestrian, particularly by providing convenient and accessible crossings. In developing improvement schemes, designers should carefully consider how pedestrians behave - they tend to prefer short, direct routes and will resist attempts to make them go where they don't want to. The key principles are set out below.



Typical pedestrian crossing of a busy road, where the crossing is designed so that pedestrians can only cross one half of the carriageway at a time, and have to wait on an island in the middle of the road. This is often appropriate for busy arterial roads, but may not be necessary for streets within town and neighbourhood centres, for example.



Where possible, design crossings to create a good pedestrian experience. Direct routes with no barriers reduce the feeling of being 'trapped'.

Key design principles:

- design streets so that pedestrians do not feel like 'second class citizens' in relation to vehicles: ensure pavements are of a generous width, create convenient crossing points, design bus stops and shelters to be pleasant places to wait;
- improve accessibility, as it helps everyone - make crossings on main roads and side streets easy for those pushing buggies, walking with a stick, carrying heavy shopping, and in a wheelchair; and
- think carefully about barriers - are they really necessary?

Wide roads in Sheffield carry high numbers of vehicles, but pedestrian crossings are direct.

Raised crossings for pedestrians where side roads meet the arterial road make it easier for people to walk along the major road. These 'entry treatments' also help to define changes in character from the main street to the side streets.

Above: This road carries four lanes of traffic, yet its pedestrian crossing is simple and uncluttered - making people on foot feel that they, too, are important.

Right: With imagination, even the most unpromising pedestrian routes can be improved as shown here in Birmingham City Centre.

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Reducing clutter

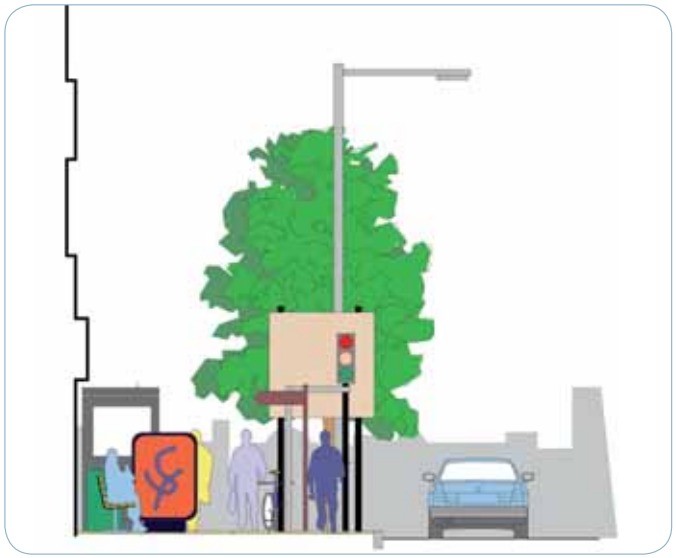
Unnecessary clutter of streets signs, bollards, benches, railings, litter bins, and light columns in a street can significantly detract from its appearance. In addition, street clutter can obstruct pedestrian movement, especially for the partially sighted. This clutter arises because there is a lack of coordination between the different organisations responsible for the signs and street furniture. Reducing clutter requires a coordinated effort, especially along major corridors, and must organise streetscape elements more efficiently by:

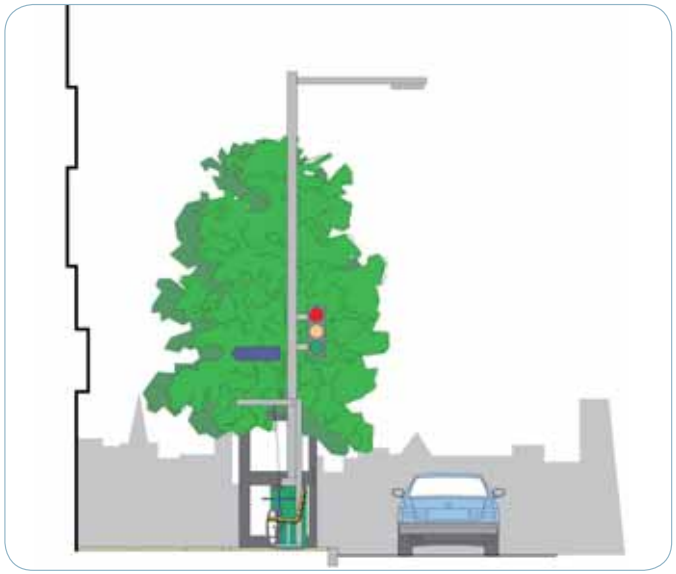
- removing obsolete signs and street furniture;
- maximising the clear pavement area for pedestrians by locating street furniture in a single strip;
- avoiding excessive 'fencing in' of pedestrians with guard rails;
- where possible, combining signs and street furniture (e.g. fixing signs to lighting columns);
- coordinating types, styles and colours of street furniture for the length of the street; and
- using a limited palette of paving and other materials to keep the street visually simple.

Above/ left: The large number of traffic signs, bollards and other items creates a poor street scene that is visually cluttered and difficult to navigate through.

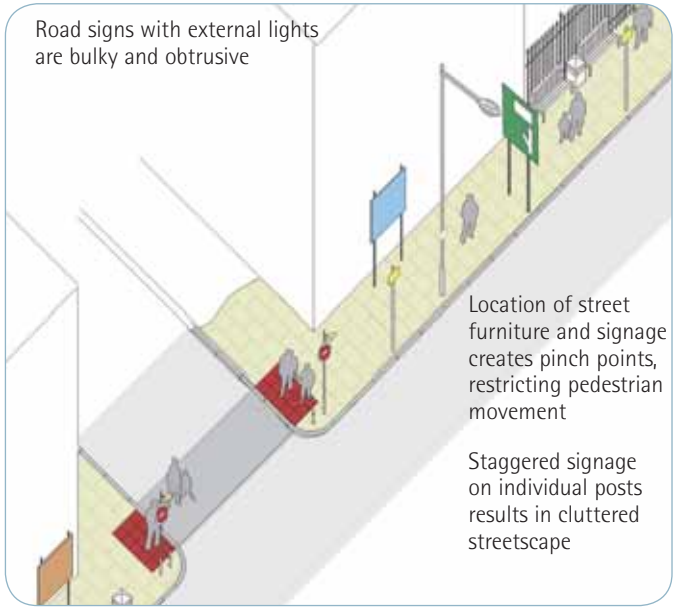
Above right: Street clutter obstructs views along the street and makes walking along the pavement difficult.

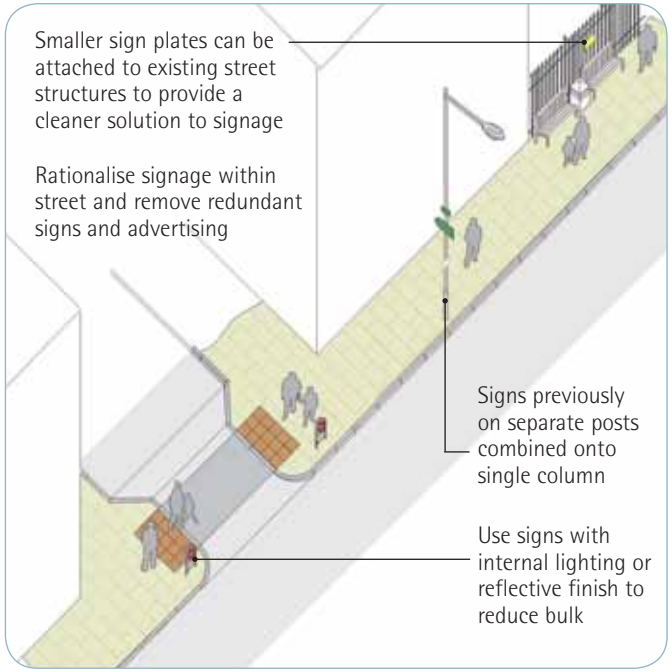
Right: Combining signs and locating street furniture into a defined strip along the pavement creates a calmer, more accessible environment.

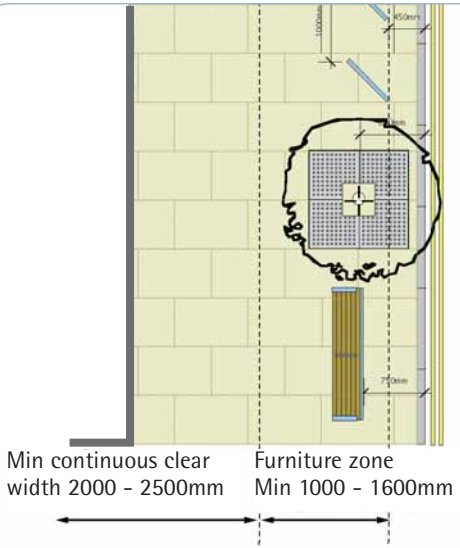




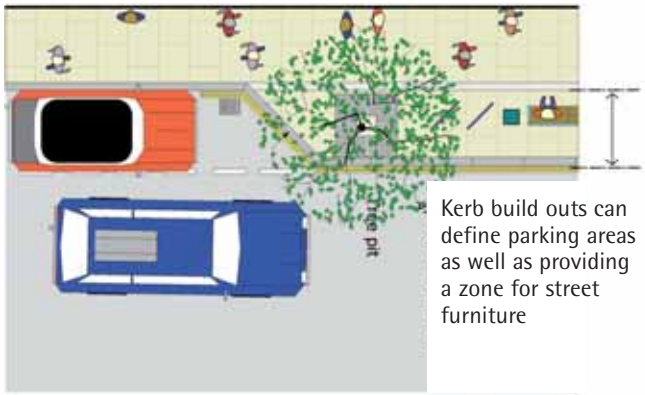
Diagrams setting out principles for reducing clutter





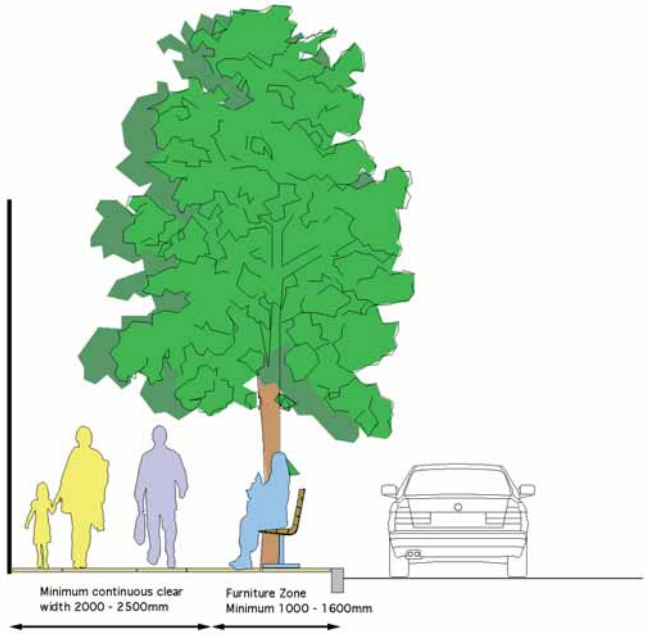


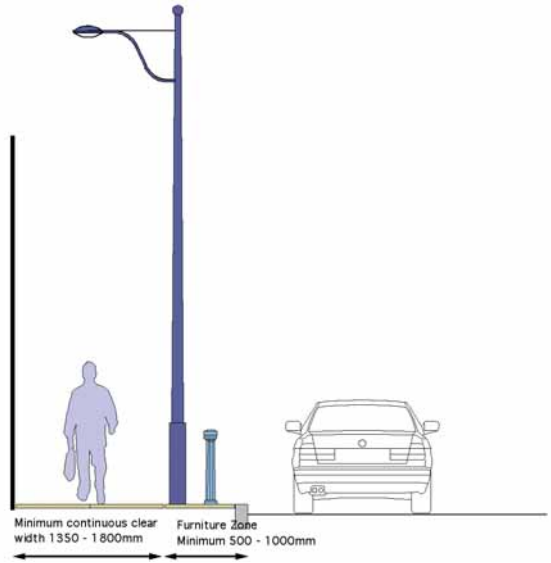
Where there is sufficient width, keep street furniture in a defined zone so that there is a clear area for pedestrians.



Kerb build outs can define parking areas as well as providing a zone for street furniture

Street furniture zone may be at the front or the back of the footway. Its location will depend on the nature of the street. A zone at the rear edge of the footway is preferred.





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Improving spaces

Whether they are small neighbourhood spaces serving a local area or civic spaces of town-wide importance, good quality spaces can give towns and village a clear sense of identity as well as providing local people with attractive places to be. Improving spaces (or creating new ones) should form part of an area-wide strategy that seeks to locate spaces where they are most useful and will have most impact. Design principles should include:

- ensure that spaces have a clearly defined function and character;
- provide a range of different spaces within a neighbourhood, so that different requirements are catered for;
- at the same time, design spaces to be flexible and adaptive so that a range of activities can take place;
- use spaces to reinforce areas of local importance (such as schools, shops, community centres);
- ensure that spaces are safe and secure - overlooked by buildings, and well lit;
- integrate public art from the outset; and
- use robust, sustainable materials to ensure longevity.

1. Active frontages onto square increase informal surveillance and encourage better use of space.
2. Considered closure of roads can allow creation of public spaces at community focus points such as schools, shops.
3. Well maintained street trees of suitable species create seasonal interest and help define boundaries to spaces and streets.
4. Creation of car-free spaces offers increased potential for outdoor activities.

Before

1. Street clutter impedes movement and creates, untidy, un-coordinated environment.
2. Traffic to all sides creates unfriendly and car dominated spaces. Surrounding buildings lack any connection to the space, making it feel more like a traffic island than a space to stop and remain.
3. Existing, poorly maintained street planting adds little to the space and obstructs movement across the space. Views to routes are hidden and obstructed by raised planting beds.
4. Views to existing attractive building frontages are hidden by planting and separated from the space by traffic.

After

1. Remove traffic from minor route to create continuous space across to building frontages, thus physically connecting buildings to the space.
2. Reunite frontages to square. Create new ground floor uses that complement open space.
3. Encourage exploration of town centre by opening up views to routes and landmarks.
4. Quality materials in consistent palette unite building frontages.
5. New tree planting and hard landscape create focal space for rest, recreation and passing through.
6. Rationalise street furniture and signage to provide simple, uncluttered environment that is easy to maintain.

Oldham and Rochdale

Green spaces

"A successful park or green space can be the making of a place. An unsuccessful one can help ruin it. Major programmes of development and regeneration are now providing greater opportunities that ever to improve the spaces we already have and to create inspiring new ones."
CABE 'Start with the Park'

Improving green spaces must be done in the context of a wider greenspace strategy. Areas experiencing growth should have sound green space strategies in place to ensure that green assets such as parks and canals are protected and enhanced as development occurs. If developed sensitively with both people and nature in mind, these existing landscape assets can become a selling point of the development and enhance the image of the area.

Key design principles

Improvements to greenspaces should:

- form part of a wider network of open space with safe, attractive routes between them to encourage sustainable methods of transport;
- form a key part of an overall development / regeneration strategy, being thoughtfully integrated into the design at the earliest stages;
- form part of a hierarchy of different spaces, of diverse type and scale in order to cater for a range of users and uses make the most of existing landscape features and assets (e.g. should maintain and enhance existing areas of biodiversity).

In addition to these strategic considerations, greenspaces should be designed to:

- be safe by design, being located along secure, overlooked routes with passive surveillance encouraged wherever possible;
- have well defined gateways, entrances and thresholds;
- integrate public art at the outset;
- where appropriate, provide facilities such as cafes and toilets that encourage people to spend longer in the space;
- improve the biodiversity and ecological value of greenspaces, so creating a richer environment for everyone;
- explore opportunities to implement sustainable drainage and water management; and
- take into consideration long-term funding and be easy to maintain.

Above: Both Sutcliffe Park and Mile End Park in London were transformed from uninspiring areas of flat grass (above) to rich environments that cater for a wide range of users and improve the biodiversity of the area.

Left: Sutcliffe Park.
Bottom left: Mile End Park.
Below: An open space strategy for the King's Cross Estate led to the improvement of a network of different types of space, and a reduction in anti-social behaviour and crime.

Improving residential streets

Improving residential streets can range from small interventions, such as creating better crossing points for pedestrians, to major changes, such as creating Home Zones. Home Zones are sometimes confused with other measures to reduce the speed of cars (such as introducing traffic calming bumps), but they are more than this. A Home Zone is a way of:

- turning a street into a public space;
- fostering a sense of community;
- transforming the appearance of existing residential areas;
- increasing opportunities for children's play; and
- encouraging walking and cycling within the local area.

In existing streets, it is essential that local people are involved in the planning and design of the Home Zone. Extensive consultation is required to ensure that the Home Zones not only meets local needs, but also are valued as a place once complete.

Many streets in Oldham and Rochdale may be suitable for remodelling as Home Zones. However, it is important to target effort so that Home Zones are created where they can have the most positive impact on the area. The essential requirements when identifying streets that may have the potential to become Home Zones are:

- home zones in relation to other streets;
- uses;
- size; and
- traffic flow.

Home zones in relation to other streets

Home Zones should not be considered in isolation: they must form part of an integrated approach to traffic in an area. This is important if low vehicular speeds are to be achieved - it is no good moving immediately from a 30mph street to a 10mph Home Zone. A better approach is to create a more gradual change - for example, traffic calming streets to form 20mph zone, and then defining key streets within this zone as Home Zones.

Uses

Home zones are usually created in residential areas, and are suitable for all types of location from inner city to rural areas, and all types of housing, from high rise flats, terraces to semi-detached homes. However, they can also be created in areas with other uses (such as shops, offices and cafes) so long as there are enough people living in the street to form a viable community.

A high proportion of dwellings in Home Zones should have 'active fronts' (living room windows and front doors) onto the streets. This helps create a sense of ownership of the street.

Size

If Home Zones are too large, drivers can become frustrated and try to drive faster, so undermining the aim of achieving low traffic speeds. The Institute of Highway Incorporated Engineers recommend that vehicles should not have to travel more than about 400m along Home Zone streets. This distance should be measured from any point within the Home Zone to the nearest point on a conventional street.

Traffic flow

Home Zone Streets should have traffic flows of no more than about 100 vehicles in the afternoon peak hour. This is usually the time of day when there is the most conflict between vehicles and people, including children playing (*source IHIE).

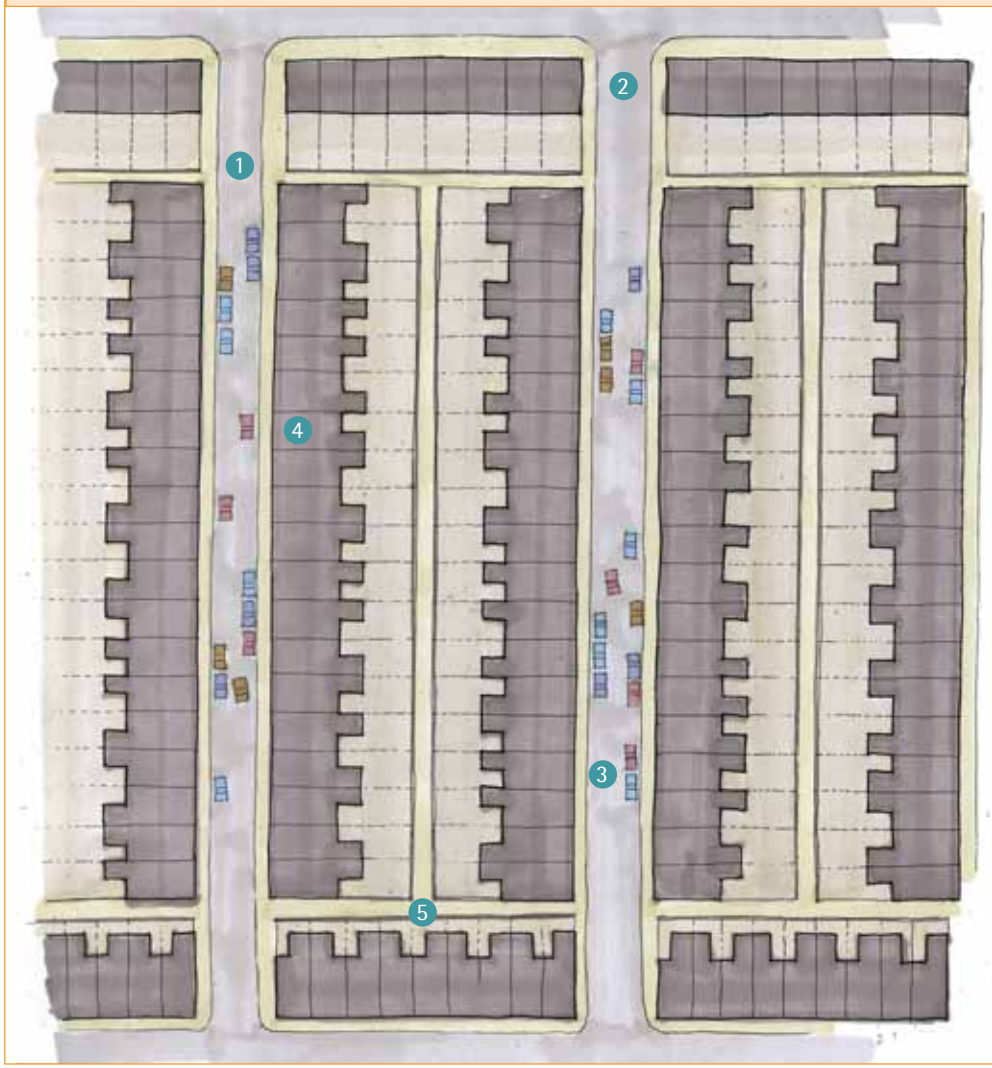
Oldham and Rochdale

Residential streets

There are no set 'rules' for creating Home Zones, as they must be designed in response to the specific requirements of each individual neighbourhood. However, there are some principles that can help inform individual designs and these are illustrated over the next few pages.

1. Straight roads encourage traffic to move fast along the streets.
2. Wide entrances to residential streets from fast roads encourage higher vehicular speeds.
3. Parking on both sides of the street dominates the public realm and makes pedestrian movement difficult.
4. Doorways directly onto the street give residents no 'private' space.
5. Narrow alleyways are unlit and not overlooked, attract anti-social behaviour and litter. They are unsafe and unsightly places.

Before



1. Narrowed carriageway and entry treatments enhance the entrance to residential street.
2. Tree planting softens and enhances 'hard' street environment.
3. Public art helps to foster a sense of community and provides informal play opportunities.
4. Removal of some existing housing allows the creation of a new route through housing blocks. The series of open spaces creates opportunities for play, relaxation and community gathering.
5. New gates to alleyways secure backs of properties.
6. New dwellings front onto the new route, providing overlooking and - hence - safety.
7. New housing blocks offer opportunities for a mix of housing types, larger family homes and smaller apartments.
8. Parking for apartments is integrated into public square.
9. Echelon parking slow traffic whilst providing parking for residents.

Photos illustrating how the area might be changed.

After

Oldham and Rochdale

Tree planting enhances the street environment and creates 'green' streets.

Allocated front gardens allow residents to personalise street.

New buildings provide smaller affordable units.

Existing alleyways secured by new gate.

Echelon parking infront of houses.

Landscaped courtyards are overlooked by new larger family homes that provide passive surveillance to spaces and new open routes through the area.

New streetlighting to buildings.

Public art feature at street gateway marks the entrance to the residential area.

Working with people

Remodeling an existing street or space, particularly in residential areas or local neighbourhood centres, can only be successful if the people living and working there want it to change and are involved in the process of planning, design, implementation and - ultimately – maintenance of the scheme. Effective engagement between professionals and local people is essential from the outset of the project. The consultation and engagement process must be tailored to the specific needs of the area and the project, but might include:

- initial explanation of what the proposals are and the benefits they could bring. This may be done through exhibitions, visits to other successful schemes and so on;
- developing an understanding of what the issues are in the local area that the scheme should address. These will vary from project to project, but will typically include issues of car parking, safety and security, desired uses and users, etc.
- agreeing trade-offs and priorities - for example, only a small amount of greening may be possible if car parking spaces are increased.
- developing an understanding of the different options that may be possible - mock-ups and models can be a good way of showing people how proposals may be arranged, what paving materials look like, where planting may be located and so on. Other approaches that can be easily understood by local people include photomontages and sketches of 'before' and 'after'.
- agreeing on the final design;
- keeping people informed through implementation through regular updates; and
- involving people in the future maintenance of the proposals

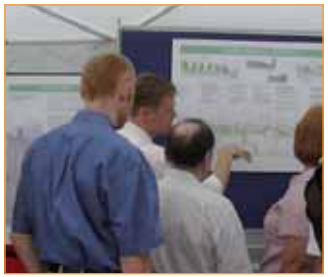
It is recommended that the following people should be involved in the consultation process:

- residents, including children, teenagers, older people and people from ethnic minorities who are often under represented in consultation events;
- local businesses within or near the proposals
- local authorities, especially the highway and planning authorities;
- operators responsible for street cleaning, refuse collection and highway maintenance;
- police and emergency services; and
- utility companies.

It is unlikely that everyone will support the proposals or the comments that others make. There may also be conflict between different groups. The key to addressing these problems is to acknowledge that they exist, raise awareness of how they might be addressed, and be transparent in the decision making.

The design team should be multi-disciplinary and include at least:

- a landscape architect;
- a highway engineer; and
- those involved in future maintenance.



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6 Appendices

Appendix A: Planning Policy Sources

Character

Oldham UDP 2001-2016	Rochdale UDP 2001 - 2016
• Design of New Development: Policy D1, para 3.12 • General Design Criteria: Policy D1.1, point a • Conservation of the Historic Environment: Polic C1 • Development Within or Affecting the Setting of Conservation Areas: Policy C1.1 • Design of New Development: para 3.5, point e • Development Affecting the Setting of a Listed Building: Policy C1.9	• Design Quality: Policy G/BE/1 • Design Criteria for New Development: Policy BE/2 • Landscaping in New Development: Policy BE/8 • Conservation of the Built Heritage: Policy G/BE/9 • New Development Affecting the Setting of a Listed Building: Policy BE/15 • New Development Affecting Conservation Areas: Policy BE/17 • Landscape Protection and Enhancement: Policy NE/6

Safety and Inclusion

Oldham UDP Review 2001-2016	Rochdale UDP Review 2001 - 2016
• Design of New Development: para 3.5, point a • General Design Criteria: Policy D1.1, point f • Inclusive Access: Policy D1.3 • Designing for safety and security: Policy D1.7	• Design Quality: Policy G/BE/1 • Design Criteria for New Development: Policy BE/2 • New Development – Access for Pedestrians and Disabled People: Policy A/3

Diversity

Oldham UDP Review 2001-2016	Rochdale UDP Review 2001 - 2016
• Design of New Development: para 3.5, points c and g • Open Space, Sport and Recreation Facilities para 10.7 points a and c	• Design Criteria for New Development: Policy BE/2 points b and c

Ease of Movement

Oldham UDP Review 2001-2016	Rochdale UDP Review 2001 - 2016
• Design of New Development: para 3.5, point c • Design of New Development: para 3.5, point d • General Design Criteria: Policy D1.1, points d and f • General Design Criteria: Policy D1.1, point k • Accessibility of New Development: Policy T2 • Access to Developments: Policy T3.1 • Pedestrian Permeability and the Public Realm (Oldham Town Centre): Policy TC1.5	• Design Criteria for New Development: Policy BE/2 • Street Furniture and the Public Realm BE/7 • New Development – Access for Pedestrians and Disabled People: Policy A/3 • New Development – Access for Cyclists: Policy A/4 • Regeneration of Centres: Policy G/S/2 • Accessibility: Policy G/A/1

Legibility

Oldham UDP Review 2001-2016	Rochdale UDP Review 2001 - 2016
• General Design Criteria: Policy D1.1, points d and h	• Design Criteria for New Development: Policy BE/2

Adaptability

Oldham UDP Review 2001-2016	Rochdale UDP Review 2001 - 2016
• Design of New Development: para 3.5, point f • Design of New Development: para 3.6	

Sustainability

Oldham UDP Review 2001-2016	Rochdale UDP Review 2001 - 2016
• Design of New Development: para 3.5, points b and h • Design of New Development: para 3.6 • General Design Criteria: Policy D1.1, point g • Designing for Energy Efficiency: Policy D1.2 • Landscape Design and Tree Planting: Policy D1.6	• Accessibility: Policy G/A/1 • Landscaping in New Development: Policy BE/8

Appendix B: Glossary

Active frontages	Active frontages are building elevations that have frequent doors and windows, with few blank walls, internal uses visible from the outside, or spilling onto the street.
Adaptability	The capacity of a building or space to be changed so as to respond to changing social, technological and economic conditions. (By Design).
Building line	The line formed by the frontages of buildings along a street. The building line can be shown on a plan or section. (By Design).
Bulk	The combined effect of the arrangement, volume and shape of a building or group of buildings. Also called massing. (By Design).
Context	The area surrounding a development site. This may be the immediate local area (the site context), or a much wider town-wide context (the strategic context).
Cul-de-sac	A street that does not connect to others; a dead-end.
Curtilage	The private area belonging to a building. Typically, the garden areas and driveway for a house.
Definition of streets	Enclosing the edges of streets with buildings and, sometimes, landscape so that they are clearly defined spaces.
Desire Lines	An imaginary line linking facilities or places, which would form a convenient and direct route for pedestrians and cyclists.
Diversity	The range of different activities, uses and building types in an area.
Embodied energy	The energy consumed in the extraction, manufacture, transport and assembly on site of building materials.
Footfall	A way of describing the number of pedestrians using a route. For example, busy shopping streets will have a high footfall, whereas a residential cul-de-sac will have a low footfall.
Habitable rooms	Rooms that are used for day-to-day living (such as living rooms and bedrooms) rather than for intermittent use (e.g. bathrooms).
Home Zones	Residential streets in which the road space is shared between drivers of motor vehicles and other road users, designed with the wider needs of the residents in mind.
Human Scale	The use within development of elements which relate well in size to an individual human being, and their assembly in a way that makes people feel comfortable rather than overwhelmed. (By Design).
In-curtilage parking	Parking within a building's site boundary, rather than on a public street or space. (By Design).
Landmark	A building or structure that stands out from its background by virtue of height, size or some other aspect of design. (By Design).
Large floor-plate	A building type which covers a very large ground floor area. A supermarket is a typical example.
Legibility	The degree to which a place can be easily understood.
Local distinctiveness	The positive features of a place and its communities which contribute to its special character and distinguish it from other places.
Massing	The combined effect of the arrangement, volume and shape of a building or group of buildings. Also called bulk. (By Design).

Mechanical cooling	The use of fans or air conditioning to cool buildings.
Micro-climate	The specific climatic characteristics of a site, which may differ from other places in the locality by virtue of, for example, a position exposed to prevailing winds; landscape that shades it from the sun.
Mixed uses	A mix of different uses (for example, retail and residential) within a building, on a site or within a particular area.
Natural ventilation	Ventilation provided by non-mechanical means, such as openable windows.
Passive solar gain	Solar heat that passes through material and is captured naturally, not by mechanical means. For example, heat from the sun may pass through glazing and be absorbed by the internal brick wall of the building.
Perimeter Block	An arrangement of buildings where public fronts look outwards onto the street and private backs look inwards onto other private space, so that the buildings themselves act as a barrier between public and private space.
Permeability	The characteristic of a well-connected network of streets, spaces and other routes.
Public Realm	Those parts of towns and villages that are available for use by everyone free of charge, and include streets, squares, lanes and open spaces.
Range of tenures	A mix of different types of residential property, including (but not restricted to) privately owned, affordable housing, and shared ownership.
Renewable sources	Renewable sources of materials can be replenished naturally in a short period of time. Renewable energy sources capture their energy from on-going natural processes such as sunshine, wind and flowing water.
Scale	The impression of a building when seen in relation to its surroundings, or the size of parts of a building or its details, particularly as experienced in relation to the size of a person. Sometimes it is the total dimensions of a building which give it its sense of scale; at other times it is the size of the individual building elements and the way in which they are combined. The concept is a difficult and ambiguous one: often the word is simply used as a synonym for 'size'. (By Design).
Street furniture	Structure in a street or space. For example, bus shelters, light columns, signs, seating and litter bins.
Supplementary Planning Document (SPD)	Supplementary Planning Documents provide additional detail to Local Development Framework Policies, providing guidance to developers and their designers on what is expected of them. If applications for planning do not conform with the SPD they may be refused.
Sustainable Development	Development that simultaneously meets environmental, economic and community needs without comprising the needs of future generations.
Drainage	
Sustainable Urban	Surface water drainage methods that take account of quantity, quality and amenity issues are collectively referred to as Sustainable Drainage Systems (SUDS).
Traffic calming	Traffic management measures designed to reduce the speed of vehicles along routes, particularly in residential areas.
Urban Design	The art of making places. Urban design involves the design of buildings, groups of buildings, spaces and landscapes, in villages, towns and cities, and the establishment of frameworks and processes which facilitate successful development. (By Design).
Urban grain	The pattern of buildings and their plots and how they combine to form blocks within a settlement. Urban grain may be 'fine', comprising small blocks and frequent street junctions, or it may be 'coarse', comprising large blocks and infrequent street junctions.

Appendix C: References

CABE & DETR (2000) **By Design – Urban Design in the Planning System: Towards Better Practice**
Thomas Telford Publishing

CABE & DTLR (2001) **Better Places to Live By Design**
Thomas Telford Publishing

Department of the Environment Department of Transport (1992) **Design Bulletin 32: Residential Roads and Footpaths – Layout Considerations**
MSO

DETR (1998) **Places, Streets and Movement: A Companion Guide To Design Bulletin 32 - Residential Roads and Footpaths**
ETR

DCLG/DoT (Draft) **Manual for streets**
Draft due to be published in March 2007

Landscape Projects (2005) **Rochdale Borough Gateways and Corridors Strategy**
Rochdale Development Agency, Rochdale MBC & Oldham Rochdale Partners in Action

Biddulph, Mike (2001) **Home Zones: A Planning and Design Handbook**
The Policy Press

WSP et al (2002) **Home Zone Design Guidelines**
Institute of Highway Incorporated Engineers

Rochdale (2006) **Rochdale Borough Public Realm Handbook**
Rochdale Development Agency & Rochdale MBC