

'Good design keeps the user happy, the manufacturer in the black and the aesthete unoffended'. RAYMOND LOEWY



The canopy and the colour contrast highlight the entrance to this building.

Below: the quality of public and private amenity space

is crucial to the success of residential development. Potsdamer Platz housing, Berlin. Photograph by



An excellent example of integration of a carriage arch into a building façade - Woollen Hall, Southampton.



[©] Richard Rogers Partnership

5.0 PUBLIC REALM QUALITY

5.1 Building form and townscape character

Objective

To ensure that development form respects, complements and improves the quality of the built environment.

Local Plan policy SDP 8iii calls for well defined public space. SDP 11 requires suitable access provision for disabled people and SDP10 makes a specific requirement for safe public spaces with natural surveillance. Pages 38-39 of the CCUDS give the background strategic goals for public realm and built form.

5.1.1 Building line

Common building lines create continuity in the townscape, providing definition and a clear edge to the street or space. This helps to ensure the resulting spaces are safe, useable and attractive. Rather than buildings being set back from the street or positioned centrally within a plot of land, they should be aligned along the back edge of the pavement. Industrial units and port warehouses which require larger loading areas at the building front are excluded from this requirement. New developments on busy routes with residential use at ground floor may adopt a set back of up to 1.5m except in historical contexts where the set back should match the setback of surrounding buildings. This is to protect privacy. Setting the building back behind a railing will help reduce the risk of children tapping on windows.

Along roads with a major traffic loading such as the Western Approach / West Quay Road set backs should allow sufficient width to allow retention or creation of tree avenues. Designs will need to take account of the required capacity for pedestrian and other forms of movement and access on the road frontages. In some circumstances this may require revisions to the pedestrian domain or the public highway which will affect the building setback. Where a set back is approved the corridor it creates between building and pavement should be well designed using high quality materials and well maintained.

Design Principle 5.i: Buildings should be positioned at back of pavement except where an exception is specifically agreed.

5.1.2 Access

Entrances should be very obvious. Entrances to upper floor uses (such as flats above shops) should be from the primary frontage. Designers should avoid creating alleyways that are not overlooked. Pedestrian access should be on the main road frontage and not hidden within the site. Vehicular access through the perimeter block should be provided to the inside space. This should be from the more minor of the streets surrounding the block to avoid gaping holes in the façade fronting the more important street. Access arrangements should be designed where possible to allow changes of building use. Access for disabled persons must be incorporated into the design, and should not be relegated to access via a secondary entrance. Refer also to 9.1.4 and 5, 'Approaching the building' and 'Entrances'.

Design Principle 5.ii: Building designs should emphasise external access points and provide for vehicle access to block centres. Disabled persons must be able to use main entrances. Ramps should be integrated within the building.



Southampton's mild climate provides a good environment for 'café culture'.

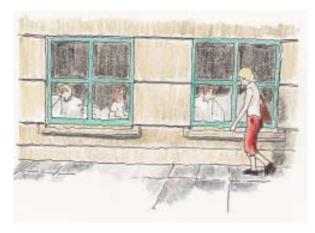
5.1.3 Active edges

In order to 'feel' safe, streets need active edges. They need a degree of mixed-use which will ensure human activity and vitality during all parts of the day. This could involve different uses on different storeys of the same building as well as use changes as you walk along the street. There should be a positive relationship between street frontages and the streets/pavements they face onto; doors and windows should be at close intervals, with potential for shop window displays, street cafes and flower stalls.

Design Principle 5.iii: Public streets and spaces should be bounded by active building frontages, and overlooked from windows of habitable rooms in dwellings or commercial buildings.



Mirror or opaque windows prevent communication between inside and out.



Transparent windows enhance the vitality of the street.

5.1.4 Viewing and being viewed

It is acknowledged that building users need to have appropriate privacy. Nevertheless good townscape should exhibit a high degree of visual interplay between buildings and streets. Passers-by should be able to see workers and customers in offices and shops. It is also critical that pedestrians feel they themselves are in an environment where there is informal monitoring of the streetscene by people using the surrounding buildings. The sense of viewing and being viewed is critical to the vitality and safety of the public realm and should be promoted by the following measures:

- Continuous street frontages with a minimum of blank walls and no gaps between buildings
- Maximising the number of windows and doors facing the public realm
- Avoid 'one-way' mirrored or frosted glass where possible
- Locate communally used and 'active' residential rooms such as living rooms and kitchens that can contribute to street vitality facing the street
- Locate private rooms such as bathrooms and bedrooms away from the street.

Design Principle 5.iv: Designs for commercial buildings should maximise the opportunities for views into them from the street, whilst providing building occupants with appropriate privacy.

5.1.5 Shop front and sign design

Guidance on shopfront and sign design is provided as Appendix 4; see also Local Plan policy REI 9. This guidance will apply to all conservation areas within the City Centre. these are as follows:

- Canute Road
- Carlton Crescent
- Old Town North
- Old Town South
- Old Town West
- Oxford Street.

5.2 Microclimate control

Objective

To create a physically comfortable environment.

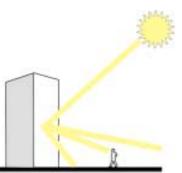
New development likely to cause excessively windy or dark places would conflict with Local Plan policies SDP 10iii and iv requiring safe and well lit places and SDP 1 and 7 concerned with general amenity and character.

The height, spacing and orientation of buildings can radically affect wind and light conditions at ground level. The reduction of wind speed and the avoidance of vortexes and wind tunnels created by dramatic changes in urban form is important because it can:

- Improve the comfort level of public spaces
- Reduce heat losses from buildings by up to 15%
- Minimise the effects of driving rain (exacerbated heat loss and damp penetration).

comfortable wind speed is considered to be 5 metres/second (DETR). Designers of major developments should use a building pattern that will help calm winds at surface level. Layouts involving large scale, unstructured open spaces with free standing buildings should be avoided. Developments of individual plots should be designed to avoid causing an increase in ground level wind speeds. Tree planting would help calm high winds and can also reduce the amount of dust in the air by up to 90%.

Tall buildings force wind down to street level, causing potentially uncomfortable conditions for pedestrians. Developers must submit wind analysis reports for tall building proposals when requested. These should include conclusions expressed in layman's terms, for example by reference to the Beaufort Scale.

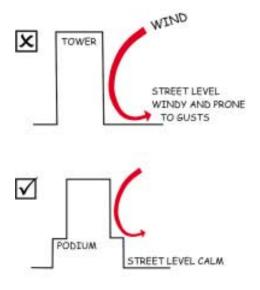


 $\overline{\mathbf{v}}$

x

N

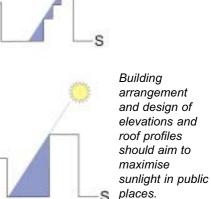
Avoid using cladding that might result in an unacceptable degree of glare at ground level.



The problems of wind funnelling caused by tall buildings.

In Southampton the prevailing wind is from the south west. The winds with the greatest wind-chill during October to April (when artificial heating is usually required) are from the north east. The maximum





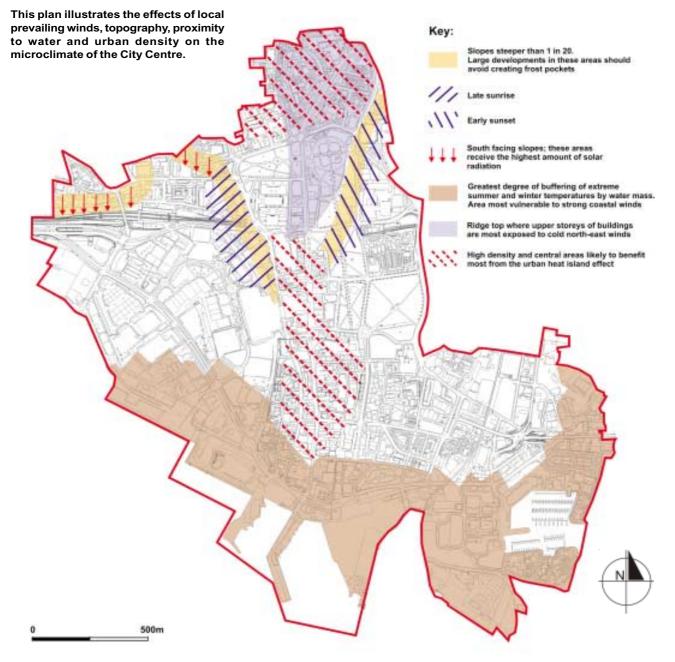
IMPORTANT

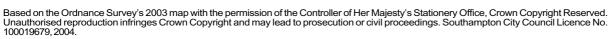
PUBLIC SPACE

The use of traditional architectural features to combat English weather, such as winter gardens, courtyards and arcades should be considered, although courtyards should be carefully planned to avoid wind eddies. Sites on sloping ground should avoid Ushaped block layouts, which are open-ended on the north side, as these are likely to become frost pockets.

Plan 5.1 MICROCLIMATE

Design Principle 5.v: New buildings should create or enhance shelter and not cause air movement strong enough to cause discomfort in the public realm, or cause excessive shading.





5.3 Street design details

Objectives

The development of routes which contribute to the overall safety and quality of design and acknowledge local characteristics in terms of scale, materials and landscape setting.

Residential developments where people are given priority over cars.

The provision of maximum choice in the means by which people travel, including the needs of disabled people.

'The role of the street is social as well as utilitarian.' Andreas Duany.

This section focuses on the aspects of route design details that most affect the urban design quality of the place. It is rooted in Local Plan policies SDP 4, 10 and 11, concerning equity of access and aesthetic quality of routes. Further highway engineering guidance is available in 'Movement and Access in Streets and Spaces' (HCC 2001), and the Streetscape Manual (SCC) gives further advice on detailed design.

5.3.1 The design process

Places Streets and Movement (DETR 1998) acknowledges "that roads have dominated housing areas, without regard to the overall quality of the locality". Whilst there is less risk of this occurring in the type of infill redevelopment likely in the city centre the design process recommended to guard against this is still relevant. Following site analysis the design of new spaces should suit the activities anticipated on the street. Only then are roads fitted in to the layout, with modifications to the buildings made to accommodate them if required (for example to facilitate traffic calming).

There should be a presumption towards the design of Home Zones (see also 5.3.5) for minor roads in areas with a high proportion of residential use. This will involve the specification of various traffic calming features which will help prevent vehicle dominated environments. Where appropriate, transport assessments should be undertaken for new development proposals and issues resolved as the design progresses. Designs should also be informed by traffic input assessments and transport plans where relevant.

Design Principle 5.vi: Spaces should be defined by buildings; only then should roads be considered. The routes should be integrated into the new spaces and controlled by them.

5.3.2 Security

Streets, parking and service courts for all types of development shall be designed with security in mind. They should be overlooked by habitable rooms. Parking and service courts should be designed to seem private. This could be achieved through use of symbolic thresholds such as road narrowing and the use of shared surfaces. Symbolic or actual gateways may also help.

Footpath and cycle ways should not be created independently of vehicle routes unless there is a strong argument for improved connectivity or they are identified in the SCC Cycling Plan. In cases where they are, they should be short stretches only and be overlooked by habitable rooms/frontage. Particular care should be taken in residential development to ensure that there are direct and safe pedestrian routes from dwellings to parking spaces.

Street lighting should be by 'white' light sources which give good colour rendition.

Design Principle 5.vii: Street and path design should address safety and security considerations (see also 5.iii). Where possible entrances into courtyard parking areas should be beneath purpose built archways integral to the building development. This will help maintain density and ensure continuity of the built edge. Archways must accommodate access by servicing vehicles.

Street surfaces should enhance the character of the area. The enhancement of architectural and historic character shall take precedence over highway requirements in situations where the latter can be modified in a manner which is compatible with highway safety for all road users and the strategic nature of the road. Contributions may be required from developers for the maintenance of additional highway works which are a prerequisite of the development and where an agreement under S.278 of the Highways Act 1980 is required.

Designers should seek to minimise street clutter. All highway signs should be as small as possible in accordance with the Traffic Signs Regulations and General Directions(1994). Opportunities for the use of wall-mounted lighting units should be pursued.

Design Principle 5.viii: Roads and paths should contribute positively to the appearance of the streetscape. High quality materials should be used wherever possible and clutter minimised.

5.3.4 Slow Speed

Predominantly residential environments should be designed to restrict vehicles to very low speeds. Highway geometry and visual messages provided by layout, surface, landscape treatment and gateway devices must work together to encourage slow speeds.

Design Principle 5.ix: New streets with two thirds or more of the units in residential use should be designed for a maximum limit of 20 mph or less.

Road Category	Maximum No. parking spaces served	Design Speed	Minimum Width
Access collector roads	750	up to 20mph	5.5m*
Access roads	375	up to 15mph	4.8m
Shared surface roads & H o m e Zones	No set limit	up to 10mph	4.5m
Private car park access	25	up to 10mph	4.1m
Private dwelling	1	walking	2.3m†

* Bus routes should be a minimum of 6.75m wide. ** May reduce to 3m between passing places.

† This should increase to 3.2m where a pathway to the house or access to a cycle store is required alongside a parked car.

The minimum width of footway for access and collector roads should be 1.8m. Where appropriate an additional 1.2m of pavement should be allowed each side of the street for street trees or an additional 1.7m where bus shelters are required.

5.3.5 Home Zones and shared surface roads

This type of street is aimed at inducing a high level of driver care by combining road and footway into a single surface, often with a surface of small unit paviors instead of tarmac. Roads serving more than 5 houses need to be built to adoptable highway standards. The layout should create a more informal environment where pedestrian priority is emphasised. Proposed sites should conform to the IHIE Home Zone Criteria. Detailed layout should conform to to IHIE Home Zone Design Guidelines (2002). For example:-

- Narrow width (see table) and strong horizontal and vertical deflections calm traffic but additional space off the roadway is required for parking.
- Include a clear transition on entry, incorporating a ramp or pedestrian crossover
- Distinctive surface material used (clay or concrete blocks or other approved material)
- Use planters and trees to visually reinforce horizontal deflections.

Design Principle 5.x: Access to developments of up to 15 residential units should be by a shared surface street or Home Zone.



A 'Home Zone' type development retrofitted to an existing Dutch street.



Purpose built shared surface street - Berlin.

5.3.6 Reducing speeds

In roads not designated as Home Zones the following list of calming measures may be used subject to approval of the individual site context. These measures should be reinforced visually, where appropriate, by changes in road surfacing, detailing and planting, whilst ensuring that drivers aren't faced with unexpected hazards:-

- Speed constraint bends
- Junctions and junction tables
- Gateways
- Mini-roundabouts
- Flat-topped humps
- Pedestrian crossovers
- Build outs, pinch points and chicanes (access and shared surface roads may incorporate pinch points with 3m minimum road width)
- Surface colour/texture changes
- Visual narrowings and strong vertical elements.

5.3.7 Mobility

The slow speeds specified earlier in this document will offer immediate benefits to those with special mobility needs or impairment. This includes the requirements of young children.

Road, path and cycleway levels should be considered carefully to ensure gradients along their lengths and up to buildings are manageable. Detailed advice on access including maximum gradients can be found in Part M of the Buildings Regulations, the Roads Design Manual (HMSO) and BS 8300 : 2001.

Design Principle 5.xi: Streets should be accessible and safe for all users.

5.3.8 Locally distinct place names

Larger developments may require new close, mews or street names, which must be approved by the City Council. These should reflect local history or geography and avoid repetition with existing names. The origin of most Hampshire place names is Saxon or Jute as indicated by suffixes such as 'ing' or 'ton'.

Ocean Village is a good example of locally distinct place names. Asturias Way and Alcantara Crescent are named after ships which used to dock in the area. Following this precept, names such as Queen Mary, Mauritania, Aquitania and Berengaria would be appropriate for streets created as a result of reclamation around Royal Pier and Trafalgar Dock, as would the names Royal Pier and Trafalgar Dock themselves.

Design Principle 5.xii: New place names should reflect local history or geography.



Locally distinctive street name - Plymouth.

5.4 Open space design details

Objective

The creation of attractive, stimulating, comfortable, healthy and safe open space that encourages social interaction.

This section relates to all open space, though streets are additionally addressed in section 5.3 Street design details. The required allocation of public amenity space and play areas as determined in the Local plan is 2.4 ha of open space per 1000 occupants, of which 1.6 - 1.8 ha should be for youth/adult use and 0.6 - 0.8 ha for children's use (CLT 5 and 6, and H10.xi). Plans 5.1 and 5.2 describe specific proposals for hard and soft landscape.

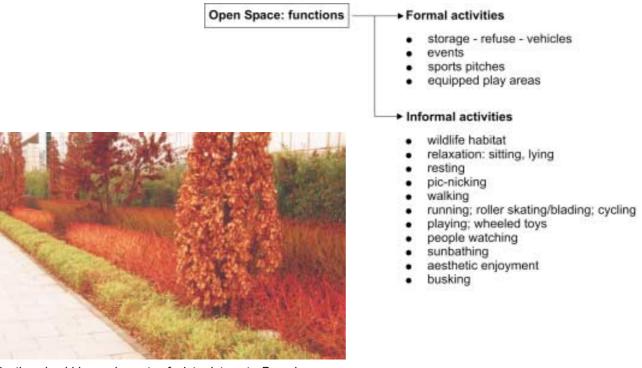
The Local Plan requires that account be taken of the retention and enhancement of existing urban spaces (SDP 7ii). Also that opportunities be taken for the creation of well defined, safe public spaces (SDP 8iii, 10i, ii and iii) funded by the developer (IMP 1).

5.4.1 The design process

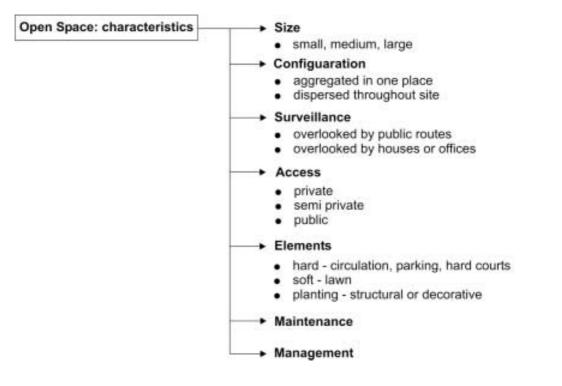
The same process involved in detailed building design applies to open space design. The first task facing the designer is the assessment of the context, function and characteristics of the required open space required (see diagrams below and overpage). Next, a hard and soft landscape structure for the site as a whole should be devised. Finally a locally distinctive detailed design should be produced. The Landscape Designer should be part of the design team from the outset and the open space considered together with the building design. Open space should not be tacked on as a use for leftover space.

5.4.2 Overall design

The layout of buildings on a site will, together with the neighbouring built context, provide an overall framework of 'positive' forms. In the largest sites or on major routes the site should be further defined by a scheme of structural planting. Any spaces (i.e. 'negative' forms) around and within the site, such as



Planting should have elements of winter interest - Parc du Citroen, Paris.



large courtyards, should then be subdivided into a series or hierarchy of smaller areas using tall structural elements such as trees, hedges, walls, trellises and pergolas. The arrangement of positive and negative volumes or solid and void compartments should create a harmonious composition. These compartments should then be articulated using small-scale positive forms such as shrubs, low raised planting beds, low walls and seats.

For the larger spaces hard and soft landscape elements should be used to create for the user a carefully designed sequence of unfolding views and spaces. Where sharp changes of path direction are desired, plants or hard landscape elements may be used to create pivot points. There should be attractive or interesting views, whilst at the same time there should be some privacy within private amenity space. Sunny and sheltered areas are most used for sitting out, with some shaded areas required for use in summer months. Open space should be versatile, so that different people may enjoy different activities in the same place.

Larger open spaces will need centres or concentrations of interest. These could be provided, for example, by accent plants or public art. There





Brindley Place, above and Victoria Square, Birmingham. Both these water features provide focal points in high quality public spaces. Private spaces have the same need of points of interest.

should be a clear relationship between sculpture and its setting; see also section 7.2.

In common with the detailed design of buildings (chapter 9) external space design will be assessed using principles of proportion and ordering. For example the Golden Section, root cubes and the logarithmic spiral will all be acceptable ordering methods for the design of open spaces. Landscape designs will be assessed in respect of the following characteristics:

- Axial or symmetrical design- expresses formality
- Asymmetrical design- expresses informality
- Hierarchy within the design
- Rhythm and repetition
- Juxtaposition of elements (form, texture, colour)
- Balance between simplicity and diversity
- Relationships between building and landscape design and dialogue between site and wider context.

Sense of ownership should be fostered for private spaces through the demarcation of the space by symbolic barriers such as fences, low hedges and changes of level. Public open space should be observable by residents and passers-by (see Design Principle 5.iii) and private, communal open space by residents. The quality and and detailing of materials and planting used should be fit for purpose; often these elements devalue the strength of the overall design concept. Plan 7.5 describes the City Council's proposals for enhancing publicly owned streets and squares. Developers may be asked to make contributions to these or other works.



Public spaces should be well maintained - Parc du Citroen, Paris.

5.4.3 Walls

The design of any retaining wall supporting the highway, including footways, must be submitted to the City Bridge Office. City Council consent is also required for the construction of any retaining wall higher than 1.4m. Developers must demonstrate that suitable risk assessment and structural design has been carried out on freestanding walls and other structures such as pergolas and trellises. Coping materials should be effective in throwing rain water clear of the exposed surfaces of wall and be securely fixed. The following should also be addressed:

- Damp proof courses (at top and base of walls)
- Expansion joints (use a discrete and durable finish)
- Adequate drainage and waterproofing behind retaining walls
- Detailing of awkward wall junctions
- Foundations and reinforcement.

5.4.4 Paving

Foundations to paved areas should be robust enough to sustain anticipated traffic levels. Paving laid over service ducts should be capable of being lifted and re-laid easily. Drainage should be achieved in an efficient and sustainable manner, with a minimum cross-fall of 1:50 on public pavements, directed to an appropriate channel. Pooling should be avoided by ensuring surfaces are even and drainage is provided. Permeable paving blocks and self-binding gravel will be welcomed where appropriate.

Pedestrian areas of paving should have adequate slip resistance and a Polished Paver Value (PPV) of 45 minimum should be specified. PPV should be measured in accordance with BS 7932. For slopes steeper than 5% a minimum PPV of 55 should be specified. Details of paving products should be included in the project health and safety file to facilitate replacement of damaged units. The edges of flexible pavements and rigid pavements composed of small units should be adequately retained and supported. Cuts of paving units should be true and regular and designed to eliminate small slivers of paving blocks. Rigid pavements will not be approved without adequate expansion and contraction joints. attention should be given to the detailing of junctions between different paving materials.

Natural hard surfacing materials or synthetic ones that rely on their colour or naturally coloured aggregates are preferred. Concrete products with pigments that degrade may not be acceptable.



Stylish and durable detailing - Barrier Park, London.



Timber from a sustainably managed source may be used (for example) for fencing, decking, pergolas etc. Tropical hardwoods may only be used if certified by the Forestry Stewardship Council or from a reclaimed source. All fixings should be galvanised or stainless steel screws or bolts, or alternatives of equivalent durability or strength. Sweet Chestnut, Larch and Oak need not be treated. Most softwood must be pressure treated with preservative and used with caution in areas vulnerable to vandalism.



Robust, attractive detailing.



Integrated lighting detail.



Attention to detail is crucial; this raised area in a car park is very poorly finished. The cobbles are spaced too far apart, giving emphasis to the mortar filling which has been laid in two batches of different mixtures. The bollard is too close to the kerb to allow cobbles between it and the kerb.



Railings - Inland Revenue, Bradford.



Hard landscape features must be high quality and durable. Barrier Park, London.

All steel structures and railings should usually be of stainless steel or galvanised/zinc sprayed mild steel. Railing spaces should avoid creating head traps. Paving panels should be stepped to match paving falls

Design Principle 5.xiii: Hard landscapes should be easy to maintain, with non-slip and well-drained surfaces and structurally sound walls and features. All materials should be durable.



Royal Victorian Dock Park, London, landscape architecture as art.

5.4.6 Planting design: trees

Southampton is a relatively 'green' city and most developments will be required to contribute positively to this image. Tree planting is particularly important and should be designed to reinforce the street and space hierarchy. There should be sufficient numbers of trees to meet the usual aesthetic needs in addition to providing a filter to remove particulate pollution, modify microclimate, contribute to ecological value and reduce noise pollution. Deciduous trees in particular may help reduce excessive solar gain in summer.

Design Principle 5.xiv: In general, trees should be incorporated into the layout of new developments or adjacent streets.

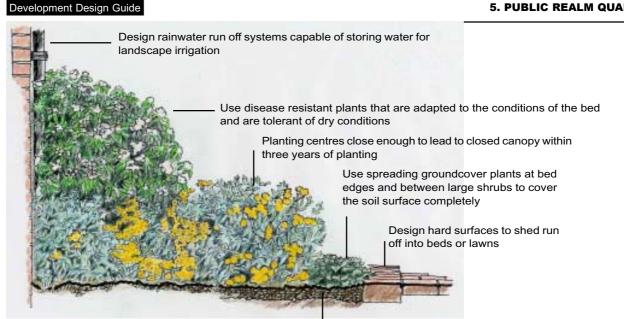
5.4.7 Planting design: shrubs and lawns

Where space permits shrub beds and lawns will be required to soften the built form. Soft landscape proposals should create attractive useable and easily maintained layouts. The proportions of areas of different shrubs and groundcovers should balance. As a general rule of thumb the area covered by lawn or hard paving should be about six times the area of shrub planting in amenity areas such as communal gardens. Adjacent planting groups should be juxtaposed to create harmonious contrast between form, texture and colour, although contrast of all three elements should be avoided except for accent planting. Where possible, shrub beds should be designed to require minimum weeding, irrigation and use of horticultural chemicals. This can be achieved by the measures identified in the diagram on the next page.

Plan 5.2 PROPOSALS FOR ENHANCEMENT OF SOFT LANDSCAPE



Based on the Ordnance Survey's 2003 map with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright Reserved. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Southampton City Council Licence No. 100019679, 2004.



Specify a minimum of 75mm layer of mulch to suppress weed and conserve soil moisture while the ground cover establishes itself

Grass and shrub areas should not terminate too acutely: otherwise there will be awkward spaces in which shrubs will rarely grow well and in which grass will usually be trampled excessively and be droughted in summer.

Design Principle 5.xv: Designers should provide responsible on-site water management and design water-efficient, low-maintenance, safety-conscious soft landscape.



Fastigate Oaks soften this approach to Brindley Place, Birmingham.



Maximising the use of trees, Singapore.



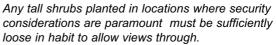
Green architecture - Barcelona.

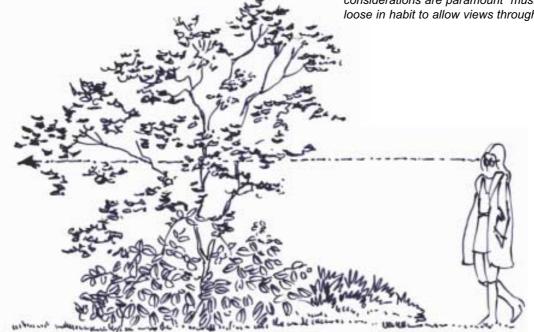
5.4.8 Safety and planting design

Planting design should be sympathetic to the need for good penetration of sunlight and light from street lamps. Where there are potential risks to pedestrians shrub planting should be low enough to prevent the creation of hiding places for assailants (usually 1.3m or less). Planting at road junctions should not obscure sight lines.



Both the above planting beds end in excessively acute angles which will be a maintenance problem and which can lead to awkward paving cuts.







Well designed and maintained car park boundary planting; Ocean Village, Southampton.

5.4.9 Equipped play area design

Play areas stimulate and challenge children within a managed environment and provide important opportunities for development. Policy CLT 6 of the Local Plan dictates the required provision of children's play areas.

5.4.10 General requirements

The quality of materials and workmanship must be high. Materials should be specified to achieve a long life and adequate maintenance for hard and soft elements budgeted for. All relevant BS or EN standards should be observed.

Design Principle 5.xvi: Design, materials, workmanship and maintenance of open spaces must be high quality, and they must be functionally integrated into the development and support local distinctiveness.

5.5 Habitat conservation

Objective

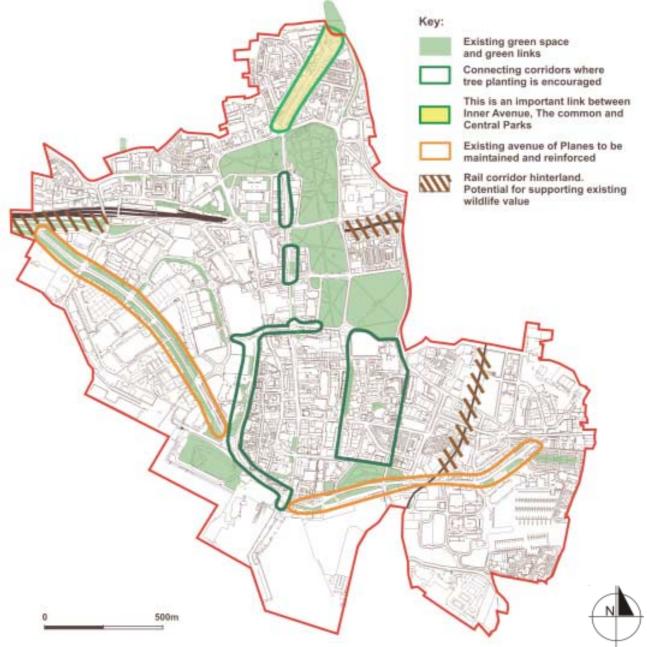
To enhance the ecological value of the City Centre.

Local Plan policies SDP 12 and H 10(v) require the retention of important habitat features and habitat creation appropriate to a development's setting. There is some limited scope for greater connectivity between, for example, Houndwell / Hoglands and Queen's Park by means of avenues of trees and 'green' roofs. Corridors or 'stepping-stones' offer the potential of movement of wildlife within developed areas. Local Plan policy NE 7(iii) requires development in the vicinity of railway to include a habitat creation scheme along the rail frontage to further enhance the rail corridors ecological value. The Council may negotiate Section 106 agreements for contributions towards planting schemes required as



Green architecture - Paris.

Plan 5.3 ENHANCING ECOLOGICAL VALUE



Based on the Ordnance Survey's 2003 map with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright Reserved. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Southampton City Council Licence No. 100019679, 2004.

a result of development (Local Plan policy IMP 1). Plan 5.3 identifies proposals for improving the ecological value of the City Centre.

Major residential developments will generate a need for additional public and private open space. In these circumstances master planners should be aware that from the aspect of wildlife value a single larger space would provide a better resource than several small areas adding up to the same size.

Where new trees are proposed consideration should be given to wildlife value in species selection. Native trees can be assumed to have greater wildlife value than exotic species. Development should minimise run-off of storm water through the use where possible of permeable surfaces.



The Ramblas Boulevard in Barcelona on the right and more recent tree planting on the Avinguda de les Drassene on the left. Photo courtesy of Richard Rogers Partnership.