Creating the Design

Artist's impression of a new village centre. *Creating good design is about making enduring places with strong identity and distinctive character*

section 2

Creating the Design

Places that people want to live in, work in and visit do not just happen. Designers have to be creative and work hard to combine all the elements of a successful place in an integrated design.

Successful places tend to:

- be friendly, safe and attractive
- be well used - a steady passage of people provides a feeling of safety
- have public space and squares that draw people together
- have spaces for public events, markets and performances
- clearly distinguish private and public areas
- have building frontages with a direct relationship with the street
- have clearly defined entrances to buildings used by the public
- have a network of pedestrian routes and spaces
- give priority in streets to people rather than to vehicles
- have clearly defined boundaries for public areas – using hedges, fences and trees
- have a coordinated approach to street surfaces and furniture – lamps, seats, litter bins, paving, bus shelters and signs.

Quality open space *Historic green spaces and newly designed open spaces need to integrate successfully within new neighbourhoods.* Tenterden

New village centre. *Active, mixed use centres are an important ingredient of successful new neighbourhoods.* Kings Hill (Lee Evans partnership)

Drawing inspiration from a location's native character strengthens local identity. Design that is out of context will lead to an 'anywhere place'. A full appreciation of the overall site context is essential as a starting point for creating a sense of place.

Local Distinctiveness *These modern houses revive a traditionally Kentish coastal appearance.* Whitstable (Clague Architects)

Town Centre. *Strong vibrant centres are needed in Kent's existing towns if they are to support growth of residential areas.* Whitefriars Canterbury (Land Securities)

Creating a 'sense of place'

Creating a 'sense of place' or 'character' is one of the most important things for new development to achieve and requires considerable skill. It combines all aspects of the design process from site selection and analysis through to the finest of details.

A sense of place is about character, identity and variety. Architectural distinctiveness and urban design is required that appreciates the surroundings, the topography and views and reinforces identity. Buildings need to be distinctive to reflect their specific location. The sense of place needs to be unmistakably of that location, rather than one that could be anywhere else. Innovative ideas and thinking from elsewhere can still be integrated, but the local sense of place must be reinforced and not diluted; the place must be made more memorable, not less so.

Buildings and areas of architectural or historic interest are of particular importance. Their cultural and aesthetic qualities give a richness and diversity to the environment and offer a sense of place and historic continuity.

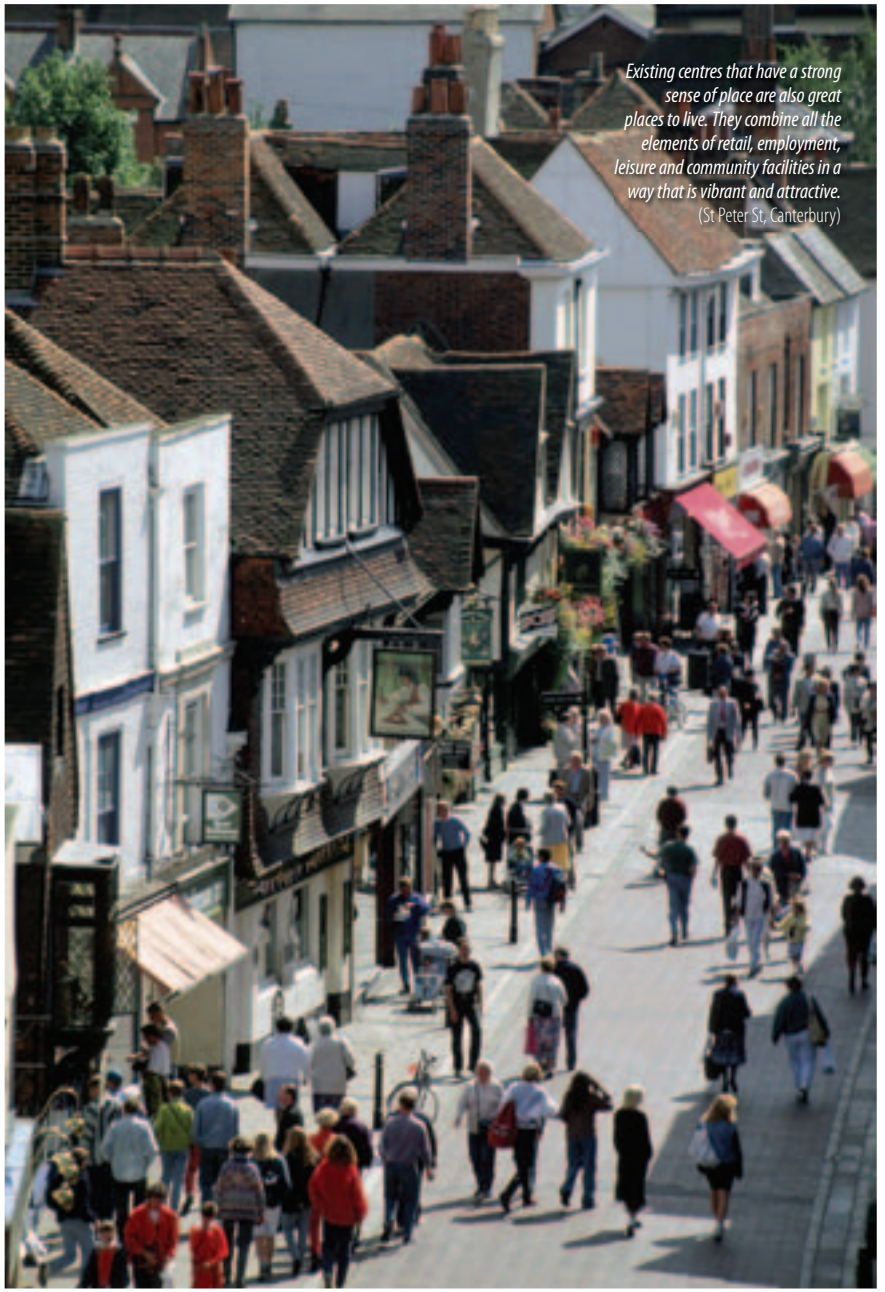
This section of the Guide sets out the important aspects of creating designs for memorable, vibrant, attractive and safe new places. Four steps can be identified:

Step 1 – Understanding the site

Step 2 – Generating the layout

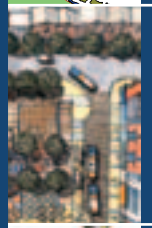
Step 3 – Designing for movement

Step 4 – Getting the detailing right

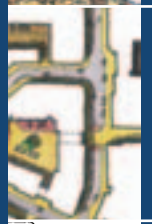


Existing centres that have a strong sense of place are also great places to live. They combine all the elements of retail, employment, leisure and community facilities in a way that is vibrant and attractive. (St Peter St, Canterbury)

Step 1
Understanding the site



Step 2
Generating the layout



Step 3
Designing for movement

Step 4
Getting the detailing right

Creating the Design

Step 1 - Understanding the site

2.1 UNDERSTANDING THE SITE

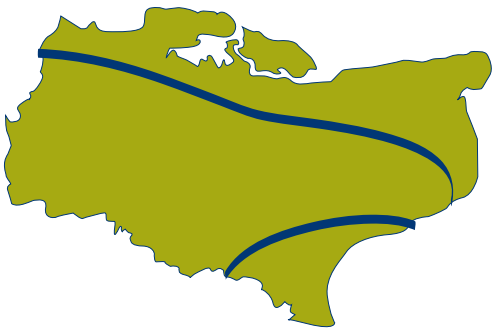
To be successful, any new development needs to be based on a good understanding of the local context.

Kent is a large and diverse county exhibiting a variety of building characteristics in different areas.

External perceptions of Kent are mainly based on 'Garden of England' images, for example the orchards, market gardening and hop farms of West and North-West Kent, but also the former industrial areas of North Kent, particularly along the River Thames and the Medway. These perceptions help us to define character landscape areas of Kent:

- The **coastal** strips – North and East Kent *(visions of seaside holidays)* to The White Cliffs and Folkestone *(the gateways to and from continental Europe)*
- The **North Downs** and **Greensand Ridge** from Farnham in Surrey to the coast at Dover
- The flat areas of **Romney Marsh**.

This has resulted in a variety of vernacular forms of historic architecture in Kent. These mainly stem from the use of localised materials, maritime influences, and proximity to means of transport.



'One of the keys to a successful project is to achieve an understanding of its physical context through an urban design analysis; it is unwise to try to change a place without first understanding it. This analysis should go beyond the view from the site boundary. The site's context includes the neighbourhood and the town or city as well as the street'.
CABE 'Design Review'

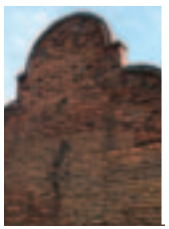
Character areas of Kent. *Familiar images of Kent's coast, downs and marsh help us form an overall impression of character.* (The beach at Dover; Northdowns Way near Trotiscliffe and Fairfield church on Romney Marsh)

The positive features of the area should be identified and reinforced in any new proposal.

To achieve a well-integrated design, the established character of existing towns, villages and countryside must be understood and respected. The layout and appearance of buildings should be based on an appraisal of the character of the site and the adjoining land and buildings (an approach advocated in PPS1). Many modern developments fail to do this; being larger in scale, having greater uniformity of building type and needing to accommodate the intensive use of vehicles.

New buildings in places with architectural or historic character need to enhance that character.

Sometimes it may be best to reflect the predominant period style. But a design that interprets the character in a contemporary way using modern or traditional materials will work well if designed to a high quality that respects its context. A legacy of good buildings that reflect the spirit of our age without detracting from the historic context is a primary aim.



Building character in Kent. *A variety of home grown architecture exists in Kent. There are traces of outside influence historically such as the Dutch Gable. Many new buildings choose to follow closely a 'Kentish Style' where the context is largely historic.* (Homegrown architecture at Broadstairs, curved corner building in Canterbury and Dutch gable end at Sandwich)

Kent and the history of its built environment

Although previously settled by Belgic and Roman invaders, Kent's distinctive pattern of small settlements stems primarily from its Saxon past. Market towns evolved on this pattern to provide the economic hubs whilst isolated churches met the needs of remote communities. While Kent has splendid examples of Elizabethan, Jacobean and Palladian architecture, much of the county's built heritage has been defined by the practice of dividing land into small plots, resulting in a substantial heritage of small, timber-framed houses.

Kent's scattered interior contrasts with the character of the coastal towns. Here, there are fine examples of defensive castles and military strongholds. The influence of continental trade on domestic architecture remains in curved Dutch gables, particularly in East Kent.

Kent's religious buildings include Augustinian 7th Century churches, fine 12th – 14th Century parish churches, and the cathedrals at Canterbury and Rochester. Windmills, oasts and agricultural buildings also make a significant impact on Kent's heritage and landscape.

Detailing in context is important. Some external features that add to an urban scene can detract from a rural one (for example, ornate walls, railings and lamps, ornamental plants and trees). The inappropriate use of hard paving and kerbs can also be detrimental to the rural environment.

2.1.1 THE SITE APPRAISAL

A rigorous investigation of the site will be required for all development.

Proposals should be accompanied by a thorough 'Site Appraisal' which should include as a minimum:

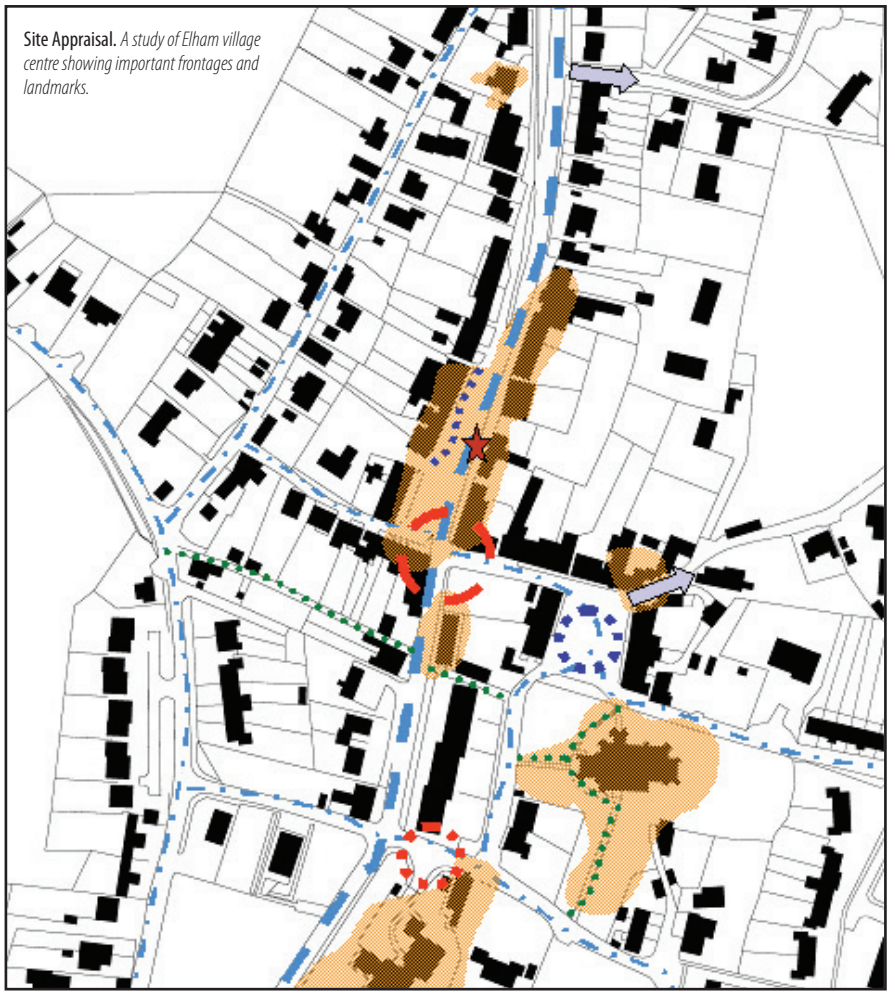
- the historical development of the area
- existing qualities that will influence new development
- the level and lie of the land
- the historic influences and design quality of the built environment
- the pattern of streets and movement
- constraints and opportunities
- statutory protection provided in conservation areas and for listed buildings

A Site Appraisal Checklist is included at the end of section 2

Features of 'local distinctiveness' may appear elusive, but clues usually lie in the history, landscape or deeper evaluation of an area. The appearance of previous buildings should be researched. The more challenging sites without distinctiveness can offer the opportunity for innovation and an opportunity to create a new identity.

Conservation areas, listed buildings and their settings and scheduled monuments make an important contribution to local character, provide important landmarks and legibility, and have statutory protection. Consent is required for the demolition, alteration or extension of any building or part of a building or structure, and for the removal of trees. There are many examples of buildings that have been successfully converted to new uses. Significant views to, from or across a site should be safeguarded since they will help to confirm a sense of place. Particular care in design is needed where new development will be seen against the skyline. Scale, bulk and detailing are all of equal importance.

An urban design analysis of a site's context will include assessing whether or not it is a 'gateway' or deserves a 'landmark'. This may result in a radical design solution, even an 'icon' building that could stand out from its surroundings, break existing views in a controlled way, and contribute to the area's identity and 'legibility'.



Site Appraisal. *A study of Elham village centre showing important frontages and landmarks.*

Climate Change

Climate patterns are predicted to change at an increasing rate. This will need to be taken into account at all stages in the design process, from layout/siting to the detailed design of buildings and landscape.

Building designs should be flexible to cope with future changes.
With climate change likely to bring higher tide levels, increased storms and more frequent flood events, it is even more important to take account of flood risk when considering new development. The development itself may increase the amount of surface water run-off, increasing the likelihood of flooding to the site or to other locations. Overall, the government's objective is to reduce flood risk, and it urges the use of the 'precautionary principle'. Government guidance is set out in Planning Policy Guidance Note 25 (PPG 25) 'Development and Flood Risk' due to be superseded by Planning Policy Statement (PPS) 25.

Flood Risk Assessments prepared by the Environment Agency with the local planning authority will indicate flood risk and set policies on how this is to be managed. For more information refer to the Glossary.

More information on Sustainable Drainage Systems and Sustainable construction can be found in 'Making It Happen', available 2006.

Preventing flooding. *Existing historic centres use the assets of a riverside location to their advantage but run the risk of flooding from time to time. New riverside development can create distinctive new open spaces but must be based on a careful appraisal of flood risk.* (Tonbridge and Canterbury)

Landscape Setting

The landscape setting of a development site should be understood, extended and enhanced within the site.

Landscape is a combination of nature and culture; it is formed by topography, trees, hedges, paths, roads, structures and materials. These elements determine the landscape character of an area.

A well-designed landscape will provide:

- an attractive setting for a development, its users and occupiers
- a positive environment of wider economic benefit
- a sense of place with a clear identity
- a sense of space and enclosure
- spatial benefits including integrating the visual impact of the built environment with nature
- environmental benefits including micro-climate creation, pollution attenuation and the reduction of water and energy consumption
- noise and visual screening, and
- retention of cultural associations with the natural environment.

Planting takes a long time to reach maturity so existing features which contribute to amenity and biodiversity should be retained to make the development attractive in its early years. It is important to recognise that biodiversity can be significant on brownfield sites and needs to be carefully handled.

Dover, street improvements have introduced soft landscaping to an exposed sea front street (top). Bluewater includes public open space, linking the building with large areas of water, a characterstic of the site's former use as a quarry (above left). In Gravesend a pond and mature trees forms the centrepiece of a local park (above right). In St Margaret at Cliffe, a new development of houses creates a new edge to the village using a mature existing hedge (above right)

New open space within a development can carry the character of the natural landscape into the heart of a built up area. Choice of species and management regime will be important.

Let locally distinctive landscape features define the site. Historic plot boundaries, mature hedges and natural assets like streams and rivers can help determine orientation and enhance the setting of a development.

It will not be appropriate in all cases for an otherwise rural landscape to determine the character of denser urban townscape. Nevertheless, using indigenous species of trees and shrubs throughout an urban space can tie it back to its surrounding rural area.

Contaminated land

Designers, developers, landowners and local authorities, should investigate and assess risks of potentially contaminated sites.

The issue of re-using brownfield sites can be closely bound up with issues of site contamination. Ground contamination and its treatment should be investigated and identified at the earliest stage in the design process, before a planning application is considered. This is a requirement of Section 57, Environment Act 1995. The treatment required will depend on the use and location of the site A precautionary approach should be taken to the issue of contamination *(PPS23 refers)*.

Few sites will be so badly contaminated that they cannot be used at all, but a thorough analysis must be made prior to deciding on an appropriate form of development and effective treatment. An 'Integrated Pollution Control' approach should be agreed with the Environmental Health Authority to identify:

- the type, extent and level of contamination
- the risk of displacing contaminants and affecting groundwater
- measures needed to protect users
- the treatment appropriate for the proposed uses
- the monitoring required to ensure the treatment has been effective.

Advice on contamination is given in the 'Desk Reference Guide to Potentially Contaminative Land' produced by the Incorporated Society of Valuers and Auctioneers and 'Model Procedures for the Management of Contaminated Land' produced by the Environment Agency.

2.1.2 MOVEMENT APPRAISAL

A movement and accessibility appraisal should be carried out for proposed developments to ensure a clear understanding of existing and possible future movement patterns.

The movement appraisal will inform the preparation of a movement framework for the development and should include the following elements for each mode of transport:

- how the site relates to existing routes
- how the best connections to these routes can be made
- what improvements need to be made to these routes
- The mean journey time

Walking and Cycling

Developments should be 'permeable' *(easy to move through in all directions)* and linked to the surrounding network, allowing safe, direct routes for pedestrians and cyclists. Walking and cycling can be encouraged with schemes such as 'Safe Routes to Schools' www.saferoutestoschools.org.uk. Convenient cycle storage should be provided in homes and outside community facilities, workplaces, colleges, shops, stations and other public destinations. Other considerations are:

- existing routes and approximate walking times to key facilities from the site. (A distance of 400metres usually equates to a 5 minute walk)
- how the site will connect with existing routes
- identification of barriers to walking *(e.g. the need to cross a busy road)*
- facilities for people with disabilities *(e.g. the need for alternative routes to avoid steep gradients)*. Note that those who walk the most in residential areas or town centres tend to be those who are least able to walk far – the very young and the very old.
- existing routes and approximate cycling times from the site. *(A distance of 1Km usually equates to 5 minutes cycling)*
- how the site will connect with existing routes
- identification of barriers to cycling, e.g. missing sections of existing cycleways or very steep gradients.

Horse Riding

- existing bridleways should be retained
- new developments, where appropriate, should include provision for horse-riders. Some access ways may be multi-user, i.e. walkers, cyclists and horse riders.

Public Transport

The appraisal should assess:

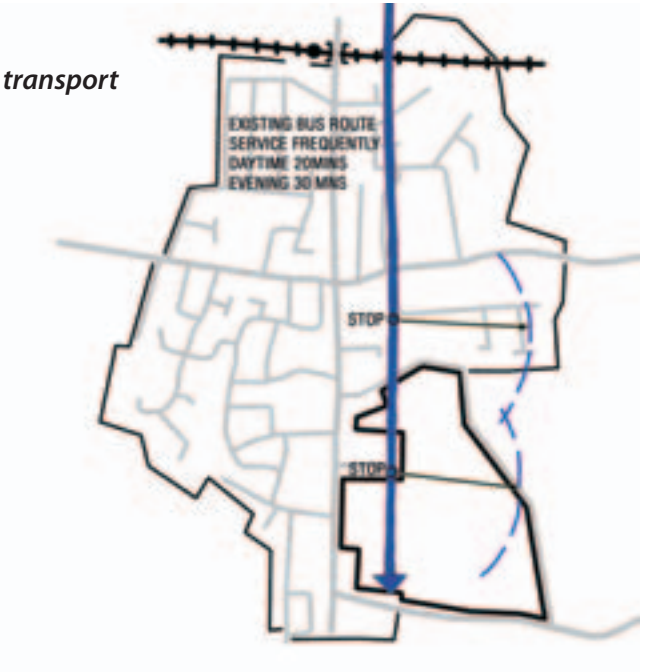
- access to existing routes together with the frequency of services. *(A frequent service is one that usually runs at 20 minute intervals or less)*
- exisiting facilities for bus or train travel *(e.g. bus shelters or real time information systems)*
- proximity of new bus or train stops. As a general rule, it is desirable for dwellings to be within 400 metres of a bus stop
- need for taxi waiting areas at an integrated transport node or mixed use area.

Vehicles

- existing road network
- existing levels of traffic and an assessment of capacity issues. Note: For larger sites a more detailed Transport Assessment will be required.

The above information should be recorded on maps and diagrams as part of the site appraisal documentation. Examples are shown overleaf. Maps and diagrams can be used for discussions with local planners and the public and can help compile a statement of design principles.

More information on Public Rights of Way can be found in the Glossary and in 'Making It Happen - Public Rights of Way', available 2006.



Diagrams showing how the findings of a movement appraisal can be represented graphically. These can be used to supplement information contained in the site appraisal and inform a statement of design principles for the development.

Access for Mobility Impaired People

From the outset consideration must be given to the needs of people with disabilities to ensure their comfort and mobility.

A movement and access appraisal should cover the needs of people with disabilities. Around 7% of people suffer from some form of disability which affects mobility. This figure may rise as life expectancy increases.

Consideration must be given to the comfort and mobility of people with disabilities. The documents 'Inclusive Mobility' *(Department for Transport 2002)* and `Reducing Mobility Handicaps' (www.iht.org.uk) cover highway design aspects.

In some cases the Local Planning Authority may require submission of a Disability Discrimination Act (DDA) audit with the planning application. The requirements of the Disability Discrimination Act came into force in October 2004.

The Building Regulations, Part M. requires both internal and external spaces to accommodate users with disabilities.

In domestic buildings and external circulation areas connected with them the avoidance of steep ramps and steps will ease access for all. External ramps and handrails may also be appropriate where they do not conflict with the needs of the partially sighted or walking disabled. For further reference see 'Designing Lifetime Homes', 1997. This includes guidance on:

- approaches that are level
- internal spaces large enough to manoeuvre a wheelchair
- passages of an appropriate width
- electrical sockets located at a convenient height.

In public buildings, the provision of suitable arrangements is a material planning consideration. Access and facilities for mobility impaired people, including parents with small children, need to be considered from the outset.

If considered from the outset, access for people with disabilities can be achieved successfully in even the most challenging and remote places. Shorne Country Park Sculpture Trail.

2.1.3 SITE APPRAISAL CHECKLIST

Any detailed appraisal should cover the following points:

Level and Lie of the Land -

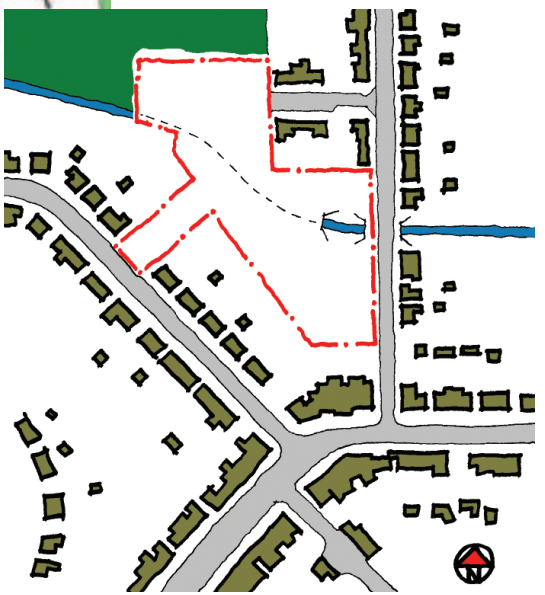
- ☐ relationship between settlements
- ☐ historic landscape setting
- ☐ orientation of the site and how it is approached
- ☐ form of the skyline
- ☐ views from the site or into the site from any public right of way crossing the site
- ☐ ground conditions, contamination, land stability, water table
- ☐ availability of natural resources for energy generation
- ☐ flood risk, streams and drainage
- ☐ nature of open spaces and how are they connected
- ☐ open spaces close to the site that could be linked to the site
- ☐ local climate
- ☐ significant or designated wildlife habitats
- ☐ existing slopes, sheltered areas and shaded areas
- ☐ proximity to existing and potential sources of noise nuisance
- ☐ archaeological remains at the site or in the vicinity
- ☐ boundaries and whether they are clearly defined
- ☐ orientation and natural daylight.

Built Environment

- ☐ relationship between buildings and spaces
- ☐ building types, scale, height, styles and density
- ☐ historical appraisal
- ☐ listed buildings and conservation areas
- ☐ boundary treatments – walls, fences, planting and verges
- ☐ important local detailed design elements such as materials, corner treatments, horizontal or vertical rhythms, windows and doors, roof lines and roof pitches, eaves heights and elevational treatments.

Pattern of Streets and Movement Appraisal

- ☐ surrounding street pattern, public rights of way and bridle ways
- ☐ existing pedestrian or cycle desire lines across or around the site
- ☐ local provision of public transport
- ☐ levels of local traffic and assessment of capacity
- ☐ width, curvature and dimensions of streets
- ☐ surface textures
- ☐ access provision – cars, pedestrians, cyclists, horse riders and people with disabilities



The findings of a site appraisal should be marked on maps and diagrams. These can be used to help other people such as local planners and the community understand the origins of a design proposal.

Use the check list to identify the main constraints and opportunities that will help shape the development

Constraints

- ☐ planning policies that specifically apply to the site's land-use, conservation, preservation, or height restrictions
- ☐ utilities, easements, rights of access and public rights of way that cannot be built on
- ☐ trees, hedges and boundary features that should be retained
- ☐ features that act as wildlife corridors
- ☐ all habitats and wild species using a site
- ☐ watercourses to be retained and any flood risk areas
- ☐ areas of sensitivity where community pressure may require additional consultation
- ☐ localised ground conditions or contaminated areas that could affect a layout
- ☐ surrounding uses which need to be protected or pose specific problems
- ☐ archaeology
- ☐ potential contribution of the proposal to existing noise levels and proximity of the site to sources of noise *(local Environmental Health officers should be contacted to identify local area designations).*

Opportunities

- ☐ mix of uses and intensification
- ☐ location of the site relative to local and main centres, public transport, health services, schools, etc.
- ☐ potential entry points to the site
- ☐ potential for use of renewable energy, local energy and combined heat and power (CHP)
- ☐ potential for creating semi-natural habitats as wildlife corridors or stepping-stones
- ☐ focal points for open space, landmarks and new facilities
- ☐ potential for improving safety and security in the area
- ☐ open spaces that could be made safer if overlooked by new buildings
- ☐ opportunities for linking open spaces and creating links to the public rights of way network
- ☐ opportunities to allow for archaeological and historic influences.

This site appraisal will allow the preparation of:

- a brief statement of design principles, explaining how the site was analysed and the design concept evolved
- an outline sustainability strategy, including how resources are to be used and recycled.