Vale of White Horse District Council

RESIDENTIAL DESIGN GUIDE

December 2009

3.0 Design Principles

3.1 How to Appraise a Site and its Context

Good design is not solely determined by how aesthetically pleasing a development is. One of the fundamental elements of successful design is that it works within its context and on its site. This section provides advice on how to evaluate the opportunities and constraints presented by a site and its surroundings.

Context Appraisal

The starting point for appraising a site is to understand its context. Section 2 describes the materials, building forms, landscape and geology that can be found within the zones across the Vale. The information in Section 2 therefore should inform the context appraisal.

Examine the area surrounding a site and identify the important features

The area covered by a context appraisal will vary significantly from site to site. As a general rule, however, the area within approximately 500 metres of the site should be evaluated.

The following questions should be addressed in the context appraisal and presented on a plan (Image 223).

1. What is the role of the site in its setting?
   - Is the site at the entrance to a settlement?
   - Is the site prominent in the streetscene or landscape?
   - Is or could the site be a focal point?
   - Is the site at an interface between a settlement and the countryside?

2. What is the character of the settlement?
   - Is it a historic settlement, where the original street patterns have been retained?
   - Is the built character dominated by one or many architectural styles?
   - Is it high density or low density?
   - Is landscaping a dominant feature or do buildings feature more prominently?
   - What influence does the car have on the streetscene?

3. What facilities and services are available locally?

223 **Context Appraisal**

3.1 How to Appraise a Site and its Context

Site Appraisal

A site appraisal should identify the constraints and opportunities to be addressed in the design process.

Examine the site and identify the constraints, opportunities and characteristics

The following questions should be addressed in the site appraisal and presented on a plan (Image 224).

1. Is the site affected by any designations?
   - Is the site in or adjacent to a Conservation Area?
   - Are there any Listed Buildings within or adjacent to the site?
   - Are there any Scheduled Ancient Monuments or other archaeological features within or adjacent to the site?
   - Is the site within a Historic Park or Garden?
   - Is the site in or adjacent to a nature conservation designation, or are there any protected species on the site?
   - Is the site in flood zone 2 or 3?
   - Are there any Tree Preservation Orders (TPO) affecting the site?
   - Are there any footpaths or other public rights of way crossing or adjoining the site?

2. Is the site constrained?
   - Is the site on a slope and can the development be practicably achieved?
   - What were the previous uses and is the site likely to be contaminated by those uses?
   - What are the neighbouring uses – are they noisy or polluting or will their amenity be affected?
   - What is the access like – is it adequate, and is visibility likely to be a problem?
   - Are there any services, such as water or sewage pipes, running through the site which would need to be diverted?

3. Are there any interesting features such as trees or hedgerows which should be retained?
   - Are there existing hedgerows that function as corridors for wildlife?
   - Are there any ponds or water features that could be retained, and could these be integrated into landscaping or drainage proposals?
   - Are there existing buildings, walls or other structures – if so, are they positive features to be retained or negative features to be removed?

224 **Site Appraisal**

4. Is the site visually contained and/or are there important views into and out of the site?
   - Does the site offer interesting views of important features, such as a church spire?
   - Is the site prominent from the surrounding streetscape or landscape?
   - Do the site boundaries need to be enhanced by additional landscaping?

3.2 How to Create a Successful Site Layout

Section 2 sets out how to analyse the character and settlement pattern of an area. The next step in the process is to design a development that works with that character and with the environment. This section addresses the first challenge in how to successfully integrate new residential development with the existing environment.

Connectivity

The starting point for integrating a site is to look at the surrounding uses, the access links and any existing access problems. Identify current traffic generation levels and consider the direction of traffic flows and any problems created by barriers to movement. Examine where the gateways, entry points and transport interchanges are (e.g. bus stops, rail stations etc).

"Ease of movement – a place that is easy to get to and move through".

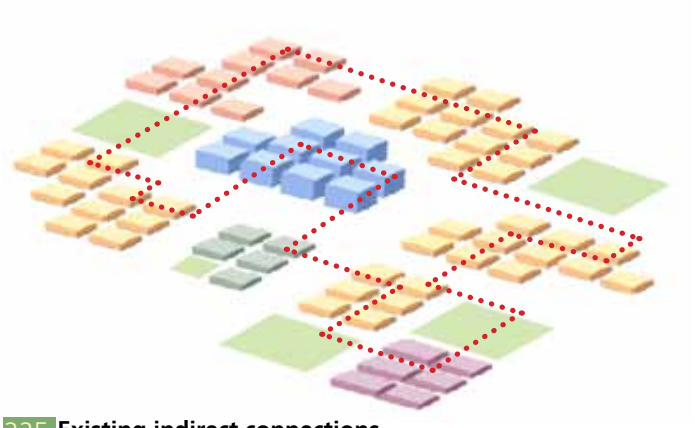
The key objective should be to create a development that connects to the local and wider area and promotes sustainable travel.

Examine the existing movement network, improve existing and provide new links

A new development must be integrated with its surroundings. This can be achieved by maximising links into the existing movement network, but also by opening up new routes, particularly for sustainable transport modes.

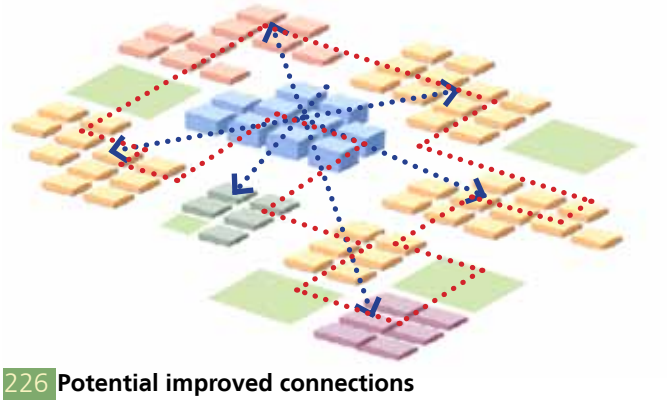
Maximise mobility for all users – encourage sustainable travel choices

Look at access and mobility for all users but particularly for pedestrians, cyclists and public transport users.



225 **Existing indirect connections**

Image 225 illustrates the existing links to neighbouring areas and facilities - could links be improved?



226 **Potential improved connections**

Image 226 illustrates how links to neighbouring areas could be improved. Proposals to improve links should consider:

- Could a site allow people to walk and cycle directly to other areas?
- Where do most people travel to, how do they get there, how can existing connections be maximised?
- What is the best way to connect a site with nearby main routes and public transport facilities?

227 **Sustainable travel facilities**

Safe and inviting cycle lanes, short term and secure cycle parking can encourage people to make sustainable travel choices and not to use their car for short journeys.

3.2 How to Create a Successful Site Layout

Permeability

Permeability -
The degree to which an area has a variety of pleasant, convenient and safe routes through it.

Many developments over the last 40 years have long culs-de-sac which are not always connected to each other and are principally designed for the car. A pedestrian wishing to walk to a shop or bus stop may end up having to take a longer indirect route.

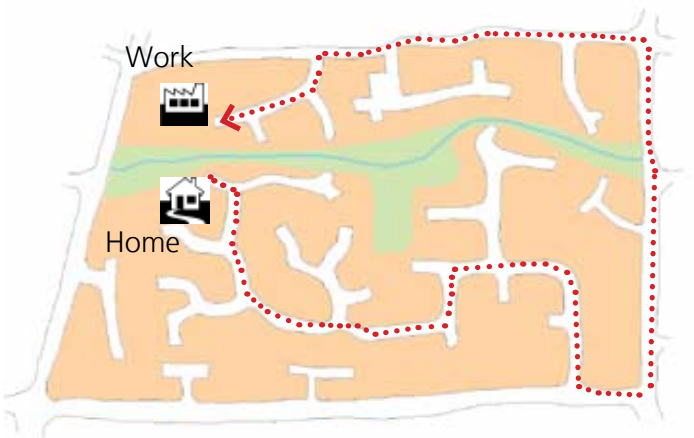
Developments, in general, should be permeable and so allow pedestrians and cyclists, in particular, to have easy and direct access to their immediate surroundings.

Create direct routes which promote walking and cycling

Design streets so that pedestrians and cyclists can safely and easily use the network

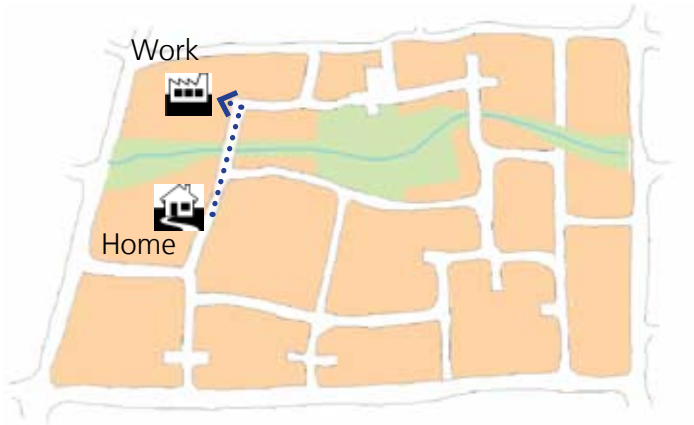
Provide a variety of safe and convenient pedestrian and cycle links between new housing developments and local facilities and public transport services

Low boundary features such as hedges, fences, walls and/or changes of surface treatment should be used to separate public footpaths from the frontages of dwellings.



228 **Site layout designed around the car**

Many modern developments were designed around the car. Image 228 highlights a journey from home to work. Although home and work are physically in close proximity, it is too far to walk as there are no direct connections.



229 **Site layout designed around residents**

Image 229 illustrates how a simple, well connected layout, would have enabled greater accessibility and a short walk to work, by connecting employment, services and facilities to residential areas.

230 **Pedestrian connections in Abingdon**

Development should be well connected so that it does not turn into a closed and inward neighbourhood which discourages pedestrian and cycle movement.

3.2 How to Create a Successful Site Layout

Legibility

Legibility –
a place that has a clear image and is easy to understand.

The network of streets should be "legible". This means it is easy to understand where you are and in which direction you want to go.

Develop a hierarchy of street types, with principal features and focal points such as landmarks, squares, nodes and street corners designed within an overall concept to give visual identity

Focal buildings and focal points are important for helping people to understand where they are and in which direction to go.

Each street, vista and view should have visual features which should relate to and reinforce legibility and local identity. This should usually be a subtle change such as:

- Height and scale – a change in roof level or an additional storey to draw attention to a focal building.
- Materials and detailing – whilst all buildings should aim for excellence, a focal building may only need to have a small alteration to materials, or include a feature of interest. Details must be appropriate to the context.
- Landscaping – mature specimen trees, a green, a small communal garden or similar open space.
- Degree of enclosure – creating a square or functional open space with buildings of an appropriate scale to enclose it.
- Public art – encouraging local identity, using local talent and including local historical and cultural associations.

231 Architectural details

232 Retaining mature trees, Grove

233 Public Art, Abingdon

3.2 How to Create a Successful Site Layout

Create distinctive character for individual streets - on larger schemes, streets need to be distinguishable from each other

Problems have been created in some modern developments by developers who have used a pattern book of standard house designs which has resulted in a lack of variety and created streets which are indistinguishable from each other. In a successful development, individual streets have a strong sense of identity, which helps create a sense of place and also helps people find their way through the development.

Designing streets with individual characteristics does not mean that each street needs to be totally different, particularly given that their design should relate to an overall concept. Subtle changes in building design, street layout and landscape will often provide the necessary variation. In addition, residential uses on upper floors can be mixed with other uses such as retail, community or commercial uses on the ground floor to give a mix of uses which will enhance the vitality of a street and help to distinguish it from other streets.

234 Streets with separate identity

3.2 How to Create a Successful Site Layout

Landmarks, Views & Vistas

Maintain important views

Developments should make the most of existing features and views. These help people to orientate themselves and find their way around a development.

Create new views

Where there are no direct sightlines through to an important landmark, consideration should be given to how the new development could open up views through the site to surrounding areas or create new local landmarks.

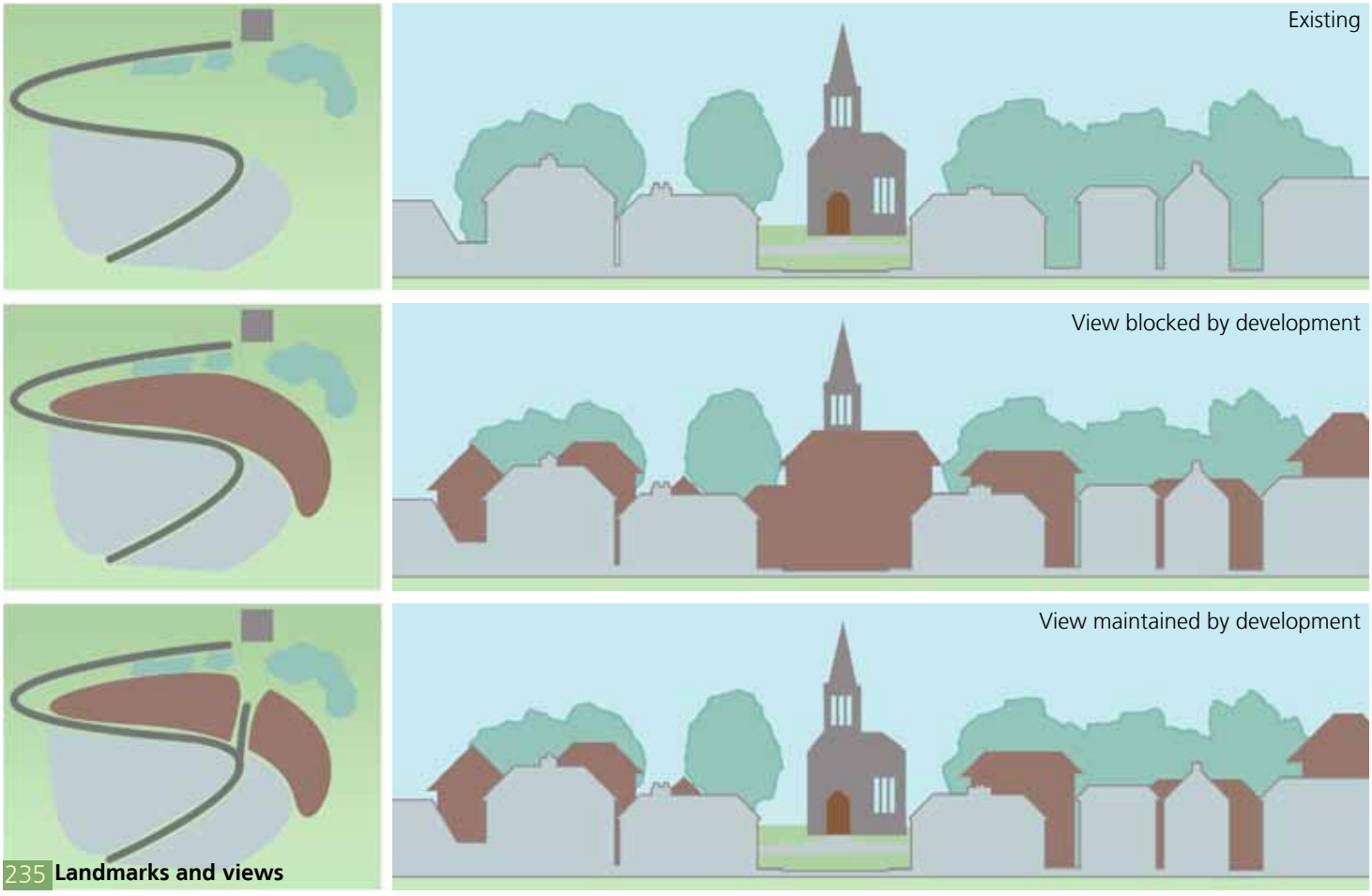
When creating new landmarks or public art features, community consultation is essential. Not only will this help ensure that the most appropriate design is chosen, it can also help to build a sense of community spirit and pride.

Design landmarks and streets to ease navigation

Views and landmarks should be designed to create a linked series of features and public spaces. This approach will draw the eye from one feature to the next and allow people to visually plan their journey from place to place.

The design and hierarchy of streets is essential in this process. Long linear streets which lead off into the distance can deter the pedestrian by making the journey appear lengthy. Successful routes are generally those with a varied sequence of long and short views, terminated with landmarks such as tall buildings. The height and scale of landmark buildings should relate to the surroundings .

Cross section drawings can help to identify the changes of scale and height of the focal points in a new development.



235 **Landmarks and views**

3.2 How to Create a Successful Site Layout

Gateways and Nodes

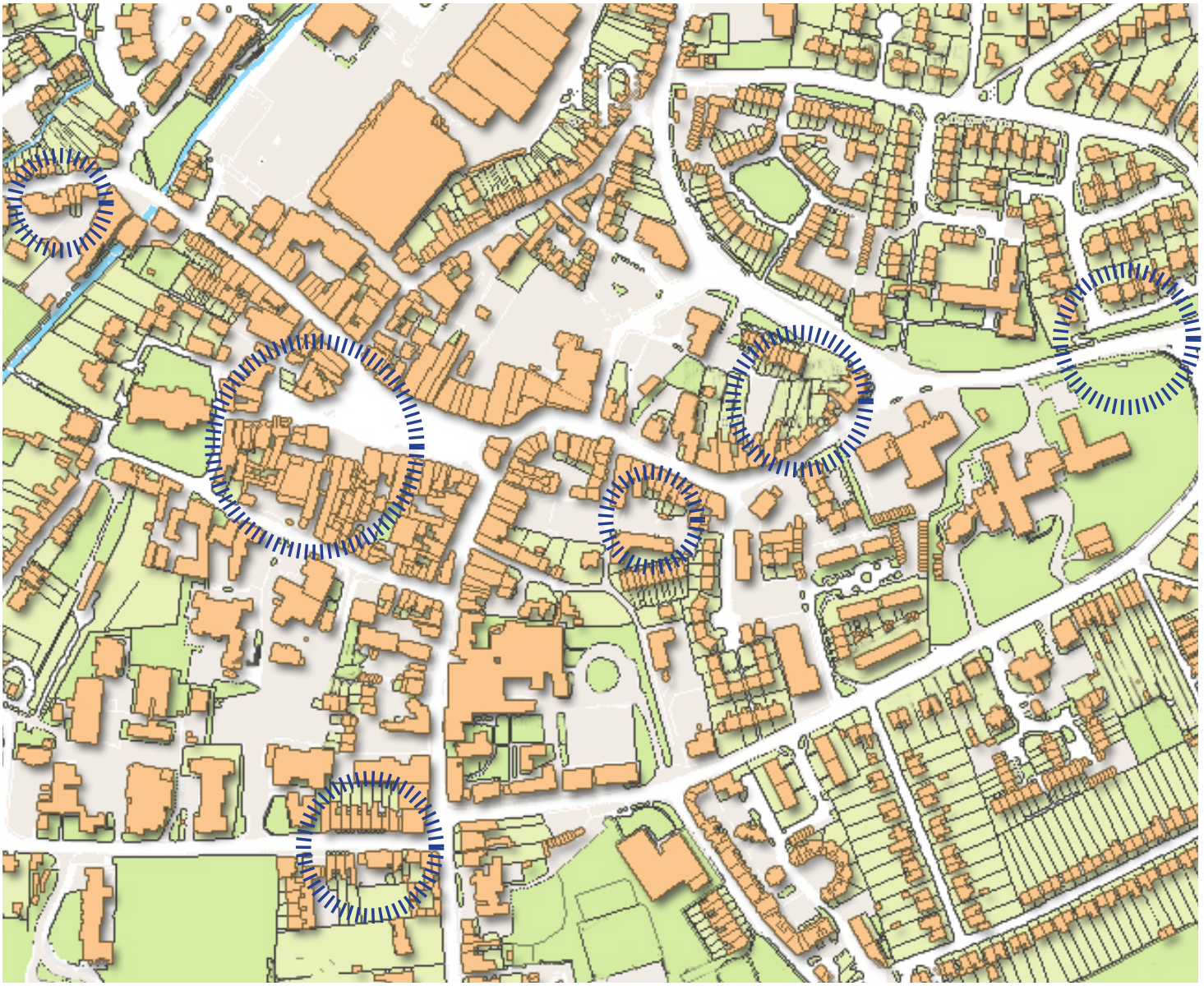
A site can be considered a 'gateway' if it is located at an important entrance point into a settlement or into a distinctive part of a settlement.

A 'node' is a location where a number of routes converge.

New developments at gateways and nodes require careful design due to their prominence and the opportunity they present to make a positive statement.

Gateways and nodes can be emphasised by:

- Key buildings - a landmark building of notable design.
- Increase in scale/height – a change in roof level or an additional storey.
- Materials and detailing – the use of a subtly contrasting material.
- A significant landscape feature.
- A public art feature - art can encourage local identity and make the most of historical associations.



236 **Gateways & nodes, Wantage**

3.2 How to Create a Successful Site Layout

Road and Street Network

Create a grid network to provide optimum accessibility and best use of land

The layout of all existing towns and cities can be simplified into a grid form. The grid can be regular shaped squares or rectangles, as found in many new towns, or it can be more irregular, as found in historic towns and villages. Image 237 illustrates how the existing streets and roads in Abingdon appear when viewed as a simple grid.

By planning a development around this simple grid form, accessibility for non-motorised traffic can best be addressed. The car and parking requirements of a new development should not be the determining factor in the design of the street layout. The needs of pedestrians, cyclists and public transport users must be given the highest priority.

Provide a clear hierarchy of streets based on promoting sustainable modes of travel

There should be a clear hierarchy of streets, with the focus on promoting sustainable modes of travel. Image 238 illustrates the hierarchy of streets described below.

Primary distributor road:
Such as main trunk and arterial routes. In general these are not appropriate for inclusion in new residential areas due to the volume of traffic they carry and associated noise and pollution problems.

District distributor road:
Should be designed as avenues and boulevards with formal layouts and landscaping. Incorporating trees will help to enclose the wide spaces that can be created.

Local level roads:
Such as a local high street, main streets and mixed use streets. These can accommodate a mix of uses such as offices and retail, which have higher activity levels.

Even rural settlements, such as Buckland, can be based around a loose grid structure with irregular blocks

The grid layout of Abingdon combines the historic grid system with modern development within irregular shaped blocks.

Historic regular grid form containing Victorian and Edwardian terraces

In blocks with only a single shared access point, pedestrian and cycle access should be maximised

Modern regular shaped blocks can provide for a number of different housing types and mixed uses within the block. This can allow greater accessibility and minimise car based journeys.

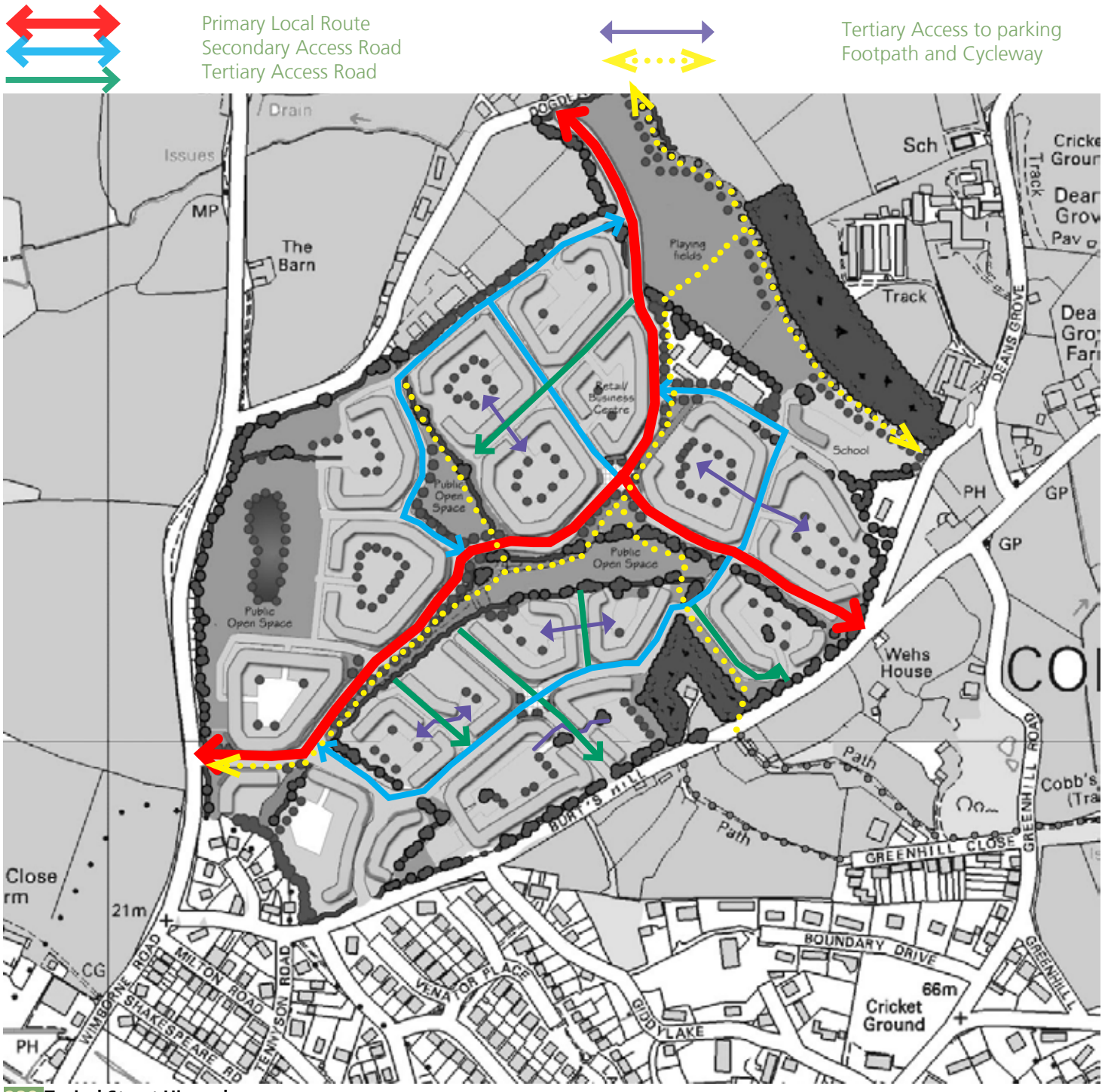
A series of blocks can be set into the smallest or most awkward of development sites, such as this narrow linear scheme.

237 **Grid view of streets**

3.2 How to Create a Successful Site Layout

Access roads:
These are routes which provide access to local residential streets and require reduced traffic speeds. Such roads often require appropriate traffic calming measures, which should be designed from the outset.

No through routes:
Such as mews, short lanes and courtyards. This type of route should not be confused with long culs-de-sac which are designed around the needs of the car and therefore create less successful residential environments.



238 **Typical Street Hierarchy**