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## 12 Adoption and Maintenance

The purpose of this chapter is to:

- Draw attention to the dependence and long term success of innovative layouts on adequate maintenance.
- Discuss adoption issues surrounding innovative layouts.
- Stress the importance of early consultation with the utility companies in deciding site layout and connection to existing services.
- Describe how the choice and use of materials can help to control movement, aid the visually impaired and contribute distinctiveness to quality places.

The key recommendations of this project are:

- Maintenance whether by local authorities, Parish Council or management company should be pre-planned and fully understood by all parties.
- An innovative layout is not in itself cause for refusal for adoption.
- Highway Authorities are encouraged to take a flexible approach to highway adoption where street layouts do not conform to conventional highway standards.
- The layout of services, roads, footways, footpaths and landscaping should be considered together.
- Sustainable Drainage Systems should be used wherever possible.
- Allow flexibility by adopting a wide pallet including local natural materials.
- All materials should be easy to maintain and durable.
- The needs of the mobility and visually impaired to be considered from the preliminary design stage.


### 12.1 INTRODUCTION

12.1.1 The quality of the environment created by new development, no matter how well designed initially, must be sustained long after the last unit has been let or sold. To do this requires good management and maintenance which is commonly the responsibility of a variety of bodies and organisations. Their work is rarely adequately responsive, co-ordinated and funded and can easily lead to conflict, clutter, poorly executed and infrequent repairs and general neglect. Ugliness and unease can easily set in. The degree to which this is a problem is most apparent in more compact, urban areas where the competition for space can be intense.

12.1.2 The Highways Act 1980 (as amended) gives highway authorities the power to adopt new highways by agreement (S38), places a duty on highway authorities to maintain adopted highways at public expense (S41) and provides for payment to highway authorities for highway works and their maintenance (S278), provided the authority is satisfied that it will be of benefit to the public.

12.1.3 It is vital to long term success of innovative residential layouts that arrangements are made for the maintenance of (and liabilities arising from failings in the placement and/or maintenance of) any planting and street furniture which is not related to the highway functions of the street. Highway Authorities are unlikely to accept maintenance and/or liability responsibilities relating to play equipment and other street

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furniture which is not related to its highway functions. Hence the arrangement normally preferred for spaces allocated to such furniture will be to designate them as play areas or open spaces.

## **12.2 LEGAL REQUIREMENTS FOR ADOPTION**

12.2.1 The designer must take into account the Highway Authority's policies for the adoption and future maintenance of Residential Access Roads.

12.2.2 Developers should produce well-reasoned design arguments if they seek the adoption of road layouts that differ substantially from those envisaged in a local authority's design guide. However, it should not be assumed that innovative designs, for example Play Zones and shared surfaces, will be rejected solely because they differ from those suggested in a guide. Provided it can be demonstrated that the design will enhance the environment and the living experience of the residents, that it will not lead to an undue increase in maintenance costs and most importantly will be user friendly then it is likely that a favourable response will be forthcoming. However, it is possible that some design elements may require the payment of a commuted sum to offset future increased maintenance costs.

12.2.3 Developers must recognise that any planted areas for public adoption must be designed for minimum maintenance.

12.2.4 All new Residential Access Roads must be constructed to a layout and specification that will render them suitable for adoption as highways maintainable at the public expense.

12.2.5 Drawings should indicate which parts of the layout the developer expects to be adopted and how the adoption limits are to be differentiated on the ground. Widths and other key carriageway dimensions and the location and dimensions of parking spaces should also be shown. Full details of all planting must be shown.

12.2.6 The Highway Authority will require a guarantee under the provisions of the Highways Act 1980 that Residential Access Roads will be completed to the approved standards.

12.2.7 Section 38 and the Advance Payments Code under part (XI) of the Highways Act 1980 provide the statutory basis for the adoption of development roads.

12.2.8 Adoption under S38 of the Highways Act 1980 ('the Act') is the most common way of creating new highways that are maintainable at the public expense – ie by a Highway Authority in perpetuity.


12.2.9 Process is that Developer constructs streets to an agreed standard, having secured technical approval to the designs. Process takes place in accordance with a legal agreement – a "Section 38 Agreement" between the developer and the Highway Authority.

12.2.10 The S38 Agreement sets out the obligations of the developer to construct the streets and to maintain them for a set period – normally 12 months. Following the satisfactory discharge of these obligations, the new streets are automatically dedicated as public highway and are maintainable at the public expense.

12.2.11 Section 38 (6) of the Act gives the highway authority considerable discretion in setting the technical requirements for the new highway:

- "An agreement under this section may contain such provisions as to the dedication as a highway of any road or way to which the Agreement relates, the bearing of the expenses of the construction, maintenance or improvement of any highway, road, bridge or viaduct to which the Agreement relates and other relevant matters as the Authority making the Agreement think fit."
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12.2.12 In the past concerns have been expressed that these wide powers have led to Highway Authorities refusing to adopt street layouts that do not conform to conventional highway standards, whether through their geometry and layout, or the choice of materials. This issue was explored in the ODPM research report 'Better Streets, Better Places'.

12.2.13 Highway Authorities are encouraged to take a more flexible approach to highway adoption than has often been the case, in order to allow greater scope for designs that respond to their surroundings and that create a sense of place.

### **12.3 WHAT IS ADOPTABLE?**

12.3.1 As set out above, the Highway Authority has considerable discretion in exercising its powers to adopt under a Section 38 Agreement. However, there are other legal mechanisms contained in the Act which help to define the legal tests for Adoption.

12.3.2 Section 37 of the Act is not used very often, because developers would normally prefer to secure an adoption agreement in the normal way, but it does provide an appeal mechanism of sorts. Under Section 37 (1) a developer can give notice to the Authority that he intends to dedicate a street as public highway.

12.3.3 If the Authority consider that the highway '*will not be of sufficient utility to the public to justify its being maintained at the public expense*' then they will have to apply to a Magistrates' Court for an order to that effect.

12.3.4 A further possibility is that the Authority accepts that the new highway is of sufficient utility but considers that it has not been properly constructed or maintained, or has been used as a highway by the public during the 12 month maintenance period. On these grounds it can refuse to accept the new road. In this case the developer can appeal to a Magistrates' Court against the refusal, and the Court may grant an order requiring the Authority to adopt the road.

12.3.5 Although little used, Section 37 effectively sets the statutory requirements for a new street becoming public highway. The key tests are:

- It must be of sufficient utility to the public
- It must be constructed (*made up*) in a satisfactory manner

12.3.6 And in addition:

- It must be kept in repair for a period of 12 months
- It must be used as a highway during that period

12.3.7 There is little case law on the application of these tests, however – as noted above, Section 37 is rarely invoked, and so it is difficult to offer practical guidance on their use.

12.3.8 Highway authorities have tended to apply a number of other tests for whether a new street is adoptable, including:

- It must serve more than 5 individual dwellings or more than one commercial premises
- It must be connected to an existing adopted highway
- It must satisfy a Road Safety Audit

12.3.9 The Advance Payments Code is the compulsory process to secure the road charge liability for frontage properties. This involves cash deposits being made by the Developer to the Highway Authority before building works can commence. It is an offence, subject to prosecution, to undertake any house building until these payments have been deposited with the Highway Authority. The money securing the road charges

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liability is used to offset the cost of works in instances where the Highway Authority carries out a Private Street Works Scheme.

12.3.10 Before any construction begins, the Developer will be required either:-

- To secure the payment of the estimated cost of the highway works under the Advance Payments code provisions that are set out in Section 219 of the Act; or
- To make an agreement with the Highway Authority under Section 38 of the Act and provide a Bond of Surety.

12.3.11 Developers should obtain Agreements under the provisions of Sections 62 or 278 of the Highways Act 1980, insofar as they affect the construction of those parts of the approved road works which are located within the boundaries of existing publicly maintainable highways. Under normal circumstances, the Highway Authority will, after executing the Agreement, authorise the Developer to carry out such works subject to approving the contractor and programme of works.

12.3.12 Under some circumstances the Developer may not be able to dedicate a certain area of land as highway because he does not own it. In these situations, the road (or footway, cycleway etc) could be adopted using the procedures under Section 228. On completion of the works, notices are posted on site. These state that unless objections are received from the owner of the land, the highway in question will become maintainable at public expense one month after the date of the notice. An inspection fee is payable in the same way as for Section 38 Agreements.

12.3.13 The Section 278 Agreement covers highways that require improvements that will have a significant effect on the day-to-day operation of the public highway during or following the construction of the works. Examples of this might be the construction of a roundabout or installation of traffic signal controls at a junction. A bond and inspection fee is payable as Section 38 Agreements.

12.3.14 The Minor Highway works (Section 278) Agreement may be used when improvements will not have a significant effect on the day-to-day operation of the public highway. This may also incorporate procedures under Section 184 of the Highways Act 1980. This is required where an access to the site is required to be constructed or improved. An example of this might be the construction or improvement of a footway along an existing road leading to the site.


12.3.15 The requirement's of the Highways Act places responsibilities and duties on those wishing to place and maintain apparatus in the Highway. These duties and responsibilities are detailed in the New Roads and Street Works Act 1991, and its Codes of Practice.

12.3.16 Section 50 of the Act defines the requirement which applies to any person or organisation (other than a statutory body) who wish to place, retain or thereafter inspect, adjust, repair, alter or renew apparatus, or change its position, including removing it from the highway, to obtain a Street Works Licence.

## **12.4 ADOPTION STANDARDS**

12.4.1 Highway Authorities would normally adopt the following subject to the exclusions noted:-

- All layouts complying with their Design Guide that have:-
    - 12.5 The benefit of a Highway Authority Construction Approval Notice; and
    - 12.6 Have been satisfactorily constructed of materials complying with, and to, the Highway Authority's specification of works (Estate Roads Construction Guide).
  - Residential Roads, combined Footways and Cycle Tracks;
  - Footways adjacent to carriageways and spine footpaths linking into residential areas;
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- Home Zones, Play Zones and shared surfaces;
  - Land within visibility splays at junctions and on bends;
  - Trees, shrubs and other features that are an integral part of vehicle speed restraints;
  - Any verges and planted areas adjacent to the carriageway. All other verges and planted areas which are not immediately adjacent to a carriageway will be regarded as amenity areas and will not be adopted as publicly maintainable highway;
  - Structures, ie retaining walls and embankments, which support the carriageway or any other adoptable area;
  - Street lighting;
  - Gullies, gully connections and highway drains and other highway drainage features (eg Sustainable Urban Drainage Systems (SUDS));
  - Casual parking spaces provided for use by visitors, service and delivery vehicles immediately adjacent to carriageways. Such spaces would be:-
    - 12.7 Additional to the off street parking requirements set out in the Chapter 9;
    - 12.8 Not allocated to residents; and
    - 12.9 Subject to highway law.
  - If it is proposed to drain the new highway into a sewer, discussions must be carried out with the appropriate Water Authority. A Section 104 Agreement (Water Industry Act 1991) must be completed and approved by the Sewer Authority.

## **12.10 COMMUTED SUMS**

12.10.1 All highway infrastructure including roads, footways, drainage and verges will generally be adopted on satisfactory completion of the maintenance period without charge.


12.10.2 Certain aspects of the highway layout may however only be adopted provided a commuted sum covering maintenance costs over and above those which may normally be encountered. These will be determined on an individual basis but will generally cover the following categories:-

- Any culvert, bridge, retaining wall or other structure;
- Any soft landscaping in excess of the areas of grass verge;
- Unusual drainage systems including on-line storage, hydro breaks, pumping stations, open watercourses, SUDS and deep bore soakaways;
- Additional areas of carriageway or footway over and above the minimum requirements specified in this Guide;
- The use of surfacing materials which whilst being approved will result in higher maintenance or replacement costs;
- The installation of specialist or non standard street lighting equipment; and
- Any street furniture not required for road safety purposes.

## **12.11 MANAGEMENT COMPANIES**

12.11.1 It is recommended the developers, in consultation with the highway authority, make it an early priority to establish a management company which can assist in managing the scheme's future, safeguarding its benefits and assuming a measure of financial responsibility for the upkeep of particular features. A variety of models is possible:

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- Private companies set up on behalf of site occupants to maintain buildings and grounds;
  - Resident Associations that act collectively for the interests of the development and its occupants;
  - Social Enterprise companies; and
  - Commonhold Associations.

12.11.2 The transfer of responsibilities need not be limited to the more usual areas of activity and could include:

- Maintenance of all Public Space including new streets, open space, play grounds, sustainable urban drainage systems and external lighting;
- Management of parking within communal areas and the public realm;
- On-site waste recycling;
- Facilities management; and
- Car clubs and car sharing schemes.

12.11.3 Special arrangements need to be made with the local Highway Authority before this could occur to enable it to take over responsibility in the event of the cessation of the local company. Any agreement would be conditional upon free and unfettered access across the public realm by all members of the community.

12.11.4 Private communal and common areas will always be managed and maintained through private arrangements and these operations will also need to have responsibility for communal gardens, car parking, cycle storage, refuse storage and composting facilities in addition to sustainable energy infrastructure that will exist on larger developments.

12.11.5 If no management company is to be set up, the developer must ensure that there is agreement with the County, District, Town and Parish Councils as to:

- Which authority (County, District or Town/Parish Council) is best able in practice to take day-to-day responsibility for each element of planting and/or non-highway-related furniture;
- What contributions are appropriate from developers to provide for the future maintenance responsibilities and liabilities arising from such planting and/or furniture; and
- The apportionment of these contributions among the authorities concerned in the light of the apportioned responsibilities/liabilities.

## **12.12 MATERIALS AND CONSTRUCTION**

12.12.1 It is not the aim of this document to set down materials or methods of construction; these are dealt with extensively in existing documents and existing design guides. Rather, it is the aim of this document to describe how the choice and use can add to a scheme's attractiveness, help to control movement and contribute distinctiveness to create quality places.

12.12.2 The innovative use and type of materials, alternative materials, local and natural materials, processes or techniques is always something to be considered by developers and local authorities. This is to be encouraged by local authorities adopting a wide pallet including local, natural materials.

12.12.3 It should be recognised that applying strict standards for construction details and materials may not always be appropriate to streets in new housing layouts.

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12.12.4 Among other requirements, the aim in building new developments should be to create places and spaces (including adoptable highway areas) which are attractive, of high quality, and have their own distinctive identity while respecting and enhancing local character.

12.12.5 To recognise and overcome some of the inflexibility that results from using standard materials, local authorities should be prepared to allow the use of some alternative materials, landscaping treatment and features. However all materials must meet the following requirements:

- easy to maintain;
- durable;
- sustainable; and
- appropriate to the local character.

### **12.13 COMMUNAL AREAS**

12.13.1 Designs need to achieve a balance between the need to provide appropriate protection for areas intended for children's play and other communal activities, without appearing to confine these activities to their designated areas which could be viewed as segregating pedestrians/vehicular activity and thus lead to higher speeds. One approach is to use fencing around play areas, which will deter the youngest children from running unexpectedly into the paths of vehicles, without unnecessarily hemming in those children who are old enough to have gained a measure of road sense. It is recommended that bollards be used to mark certain play features, such as hop-scotch markings on the road surface, so that vehicles do not park over them. Other approaches can involve appropriately sited bollards, seating or cycle parking. Advice should be sought from ROSPA as to the right level and means of providing such protection.





12.13.2 Whilst young children often enjoy quite small items of play equipment, older children should also have larger spaces available. Older children's play tends to make more noise, hence their play areas need to be more carefully sited to avoid undue disturbance to other resident's homes.

12.13.3 For older groups, adolescents and young adults, consideration should be given in design to incorporating features such as youth shelters where youths can sit and talk and other areas where people can go to meet and play games.

12.13.4 The needs of all residents need to be covered. Schemes should include ways in which both formal and informal activities can be catered for in public areas. Also, it is important that account is taken of the maintenance and liability issues, as set out in Chapter 14.

## **12.14 CATERING FOR THE NEEDS OF PEOPLE WITH DISABILITIES**

12.14.1 The design of the scheme must pay full attention to the contents of the Disability Discrimination Act, in order that a shared surface area is fully accessible and in no way hinders disabled pedestrians and residents.


12.14.2 The low vehicle speeds and volumes designed for are a general benefit for people with sensory or mobility difficulties. The provision of single-level surfaces – or alternatively, frequent footway-level crossing points – can particularly benefit people with mobility difficulties including wheelchair users, as well as those with prams etc. Care should be taken in the siting of street furniture and other features to provide sufficient space to permit through passage for all people, including wheelchair users and parents with buggies. Furthermore, twin buggies are becoming popular and can be wider than wheelchairs. Uneven surfaces such as cobbles should be avoided on surfaces for walking where they could present difficulties for wheelchair users and/or cause trip hazards for those on foot.

12.14.3 Shared surfaces can present problems to people with sight difficulties. Where there is neither a height difference nor any bollards, planters or other objects which would indicate the limits of exclusively pedestrian space to a blind person, then thought should be given to some alternative means of indication. Ways of achieving this could include differences of surface texture, which are detectable by cane users, dished drainage channels at the edge of the area intended for vehicles, and/or the use of low channel kerbs.

12.14.4 Care should also be taken to provide high levels of colour and tonal contrast to assist partially sighted people to see small vertical features such as bollards and low



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fence posts – these should generally be white banded at the top and bottom. Where signage is installed, it should not be higher than 2m. Well chosen tonal and colour contrasts in surface colouring can also assist partially sighted people to navigate the street. Street nameplates should be embossed or tactile so that they can be understood by touch reading and easily accessible.

## **12.15 LANDSCAPING**

12.15.1 Roads, footways and footpaths, cycleways, grass, shrubs and trees should complement the appearance of the developments and the character of the surrounding area. Planting, the appropriate use of a variety of soft and hard landscaping materials, and the incorporation of existing trees and other features should be an integral part of the initial design.

12.15.2 Developers need to recognise that planted areas for adoption should be designed for minimum maintenance. Therefore, the overall use of materials, planting and landscaping of any new development should be discussed at an early stage with the local planning and highway authorities.

### *Hard Landscaping*

12.15.3 Hard landscaping includes inert materials such as concrete, brickwork or cobbles/setts. Hard landscaping, including walls, fences and paved surfaces contribute greatly to an area.

12.15.4 Hard landscaping can be used to:

- create links between buildings;
- give security to private areas;
- deter pedestrian or vehicular movement;
- assist people with disabilities; and
- enclose an area.

12.15.5 The selected material used should complement the surrounding buildings and locality. It should also be durable for its purpose and of sound quality.

### *Soft landscaping*

12.15.6 Shrubs may be planted on verges but must not obscure visibility (unless included as part of a traffic calming scheme) or cause damage to services beneath the ground. Vegetation must not encroach onto the highway, including footways and verges. Shrubs chosen should have a maximum height of 600mm to ensure good visibility without requiring frequent maintenance.

12.15.7 Service strips must not be excavated by residents, planted in, or surfaced over.

12.15.8 Trees and shrubs planted on verges must not obscure sightlines and should be located at least 1 metre away from the carriageway edge. Consider young, slow growing species with narrow trunks and canopies above 2m for such locations. Like shrubs, attention must be given to ensure tree types will not damage adjacent pavings, buildings or services underground. The latter could be avoided by using 'tree pits' or 'tree boxes'.

12.15.9 The species of trees or shrubs selected must be taken into account. Attention should be made to select trees that will retain their character with little care, and can withstand pruning.

12.15.10 Protection from vehicles may be needed for grass verges as well as trees and shrubs. This can be accounted for by hard landscaping.

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## **12.16 DRAINAGE, SEWERAGE AND UTILITIES**

12.16.1 As well as making provision for pedestrian and vehicular movement most residential roads and footpaths provide routes for statutory and other services underground. (Refer to NJUG – Guidelines on the Installation and Colour Coding of Utilities Apparatus and WAA – Sewers for Adoption) These services are an essential and integral part of the layout and their efficiency and safety in use are vital. The availability and location of existing services must be identified at the outset and those who will provide the new services must be consulted at the earliest stage of the design, their requirements co-ordinated in the layout, and a balance struck between their needs and other housing objectives. The locations of any existing trees or shrubs and proposals for new planting will require special consideration.

12.16.2 It is in the interests of all parties, including residents that all services should be economical to install and maintain. The provision of adequate access for operational purposes is essential.

12.16.3 Unnecessary capital expenditure and ongoing revenue costs may be incurred if services, roads and footpaths and the location of trees and shrubs are not planned together and with care throughout the design process including detailed design. In places where the most effective form of provision may be a multi-way duct or common trench for all underground services, such an option must be considered by all parties at an early stage in design.

## **12.17 PREFERRED ROUTES FOR UTILITIES**

12.17.1 As discussed in Chapter 5, there are a number of advantages that arise from developing streets along straight lines wherever practical. This practice will also assist in simplifying utility runs, with a corresponding improvement in the efficiency of land and a reduction in the need for inspection covers.

12.17.2 Where there is any conflict in the siting of sewers and the services of other Utilities, sewers should generally have priority of position. The normal position for sewers is in the carriageway. However, where footways and verges are available, consideration should be given to placing sewers in them provided that adequate space is still available for other mains and service connections.

12.17.3 Where services are to be laid in a publicly adopted but privately maintained verge adjacent to the carriageway:

- the location of the verge should be indicated by markers such as setts or bricks at private driveway or footpath crossings;
- the status of the verge should be made clear to purchasers in the conveyance of the dwelling to make them aware that:
  - they should not build walls or fences or plant trees or shrubs on the verge;
  - service providers may need to excavate their services;
  - if a cable is installed in such a verge it could be a potential hazard to occupants who dig indiscriminately in the verge.

12.17.4 Where no alternative exists it may be possible to install service strips in land that is not publicly adopted provided early discussions are held with service providers and the highway authority and adequate safeguards are provided. Conveyance documents must incorporate perpetual rights for service providers within the service strip.

12.17.5 In Home Zone, Play Zones and Shared Surfaces where there is unlikely to be a well defined footway, the routing and depth of services will require increased

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consultation between the designers, service providers and highway authority. This consultation should take place at an early stage in the planning/design process.



## **12.18 SUSTAINABLE DRAINAGE SYSTEMS**

12.18.1 Only those drains laid for the sole purpose of the discharge of surface water drainage from the highway will be adopted by the Highway Authority. Surface water runoff from the curtilage of private property shall not discharge onto public highway or into highway drains and the developer shall make separate provision.

12.18.2 Sustainable Drainage Systems (SUDS) shall be used wherever possible with the agreement of the Highway Authority, Environment Agency, Local Authority and the Sewer Authority. Reference should be made to the 'Interim Code of Practice for Sustainable Drainage Systems' published by the National SUDS Working Group (July 2004). Where SUDS are implemented they are likely to involve payment of a commuted sum to the maintaining authority.

12.18.3 If any adoptable highway drainage or SUDS scheme is unavoidably located on private land, the developer shall ensure that a licence is given to the Highway Authority to protect and provide both for the placing of drainage/SUDS scheme and future access.

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