

# A Guide to Conserving and Enhancing the Landscape Settings of our Rural Highways

Cranborne Chase Area of Outstanding Natural Beauty



Craggatak Consulting  
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Cranborne Chase  
Area of Outstanding Natural Beauty

# Acknowledgements

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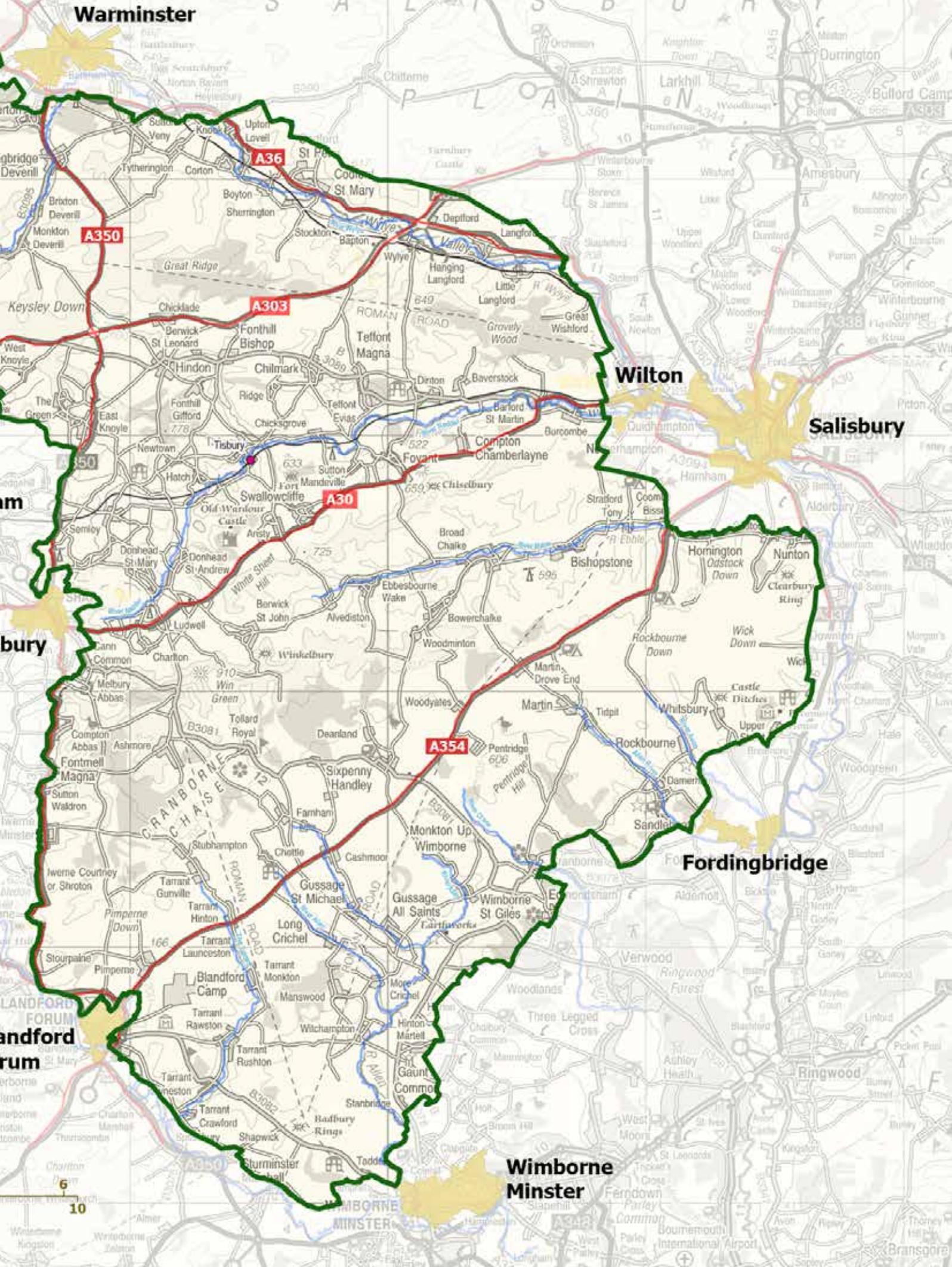
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Map 1: Cranborne Chase Area of Outstanding Natural Beauty boundary





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# 1. Introduction

## Preamble

- 1.1. People frequently see, perceive, and appreciate landscapes from roads. The highway estate - that corridor of countryside around the actual road surface - often, but not necessarily always, echoes the adjacent landscapes. Both of these factors are particularly important in nationally designated landscapes, such as an Area of Outstanding Natural Beauty (AONB)
- 1.2. AONBs are precious landscapes whose distinctive character and natural beauty are so outstanding that they are nationally important and considered worthy of special protection and are hence specially designated by the Secretary of State<sup>1</sup>. A legal duty is placed on all public bodies and holders of public office to 'have regard to' the purposes of designation - 'conserving and enhancing natural beauty' - when exercising or performing any functions affecting land in the designated area, including the setting of that land<sup>2</sup>. An AONB is a place where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological, historical and / or cultural value. Safeguarding the integrity of this traditional interaction is vital to the conservation, maintenance and evolution of such an area.
- 1.3. Cranborne Chase AONB is an area of 983 sq km, forming part of the extensive belt of chalkland which stretches across southern England. Its designation in December 1981 was confirmed in October 1983. It abuts the Dorset AONB and is a short distance from the New Forest National Park.
- 1.4. The highway environment in the exceptional landscapes of the Cranborne Chase AONB deserves special attention to reflect and sustain its exceptional qualities and characteristics.

## Purpose of this document

- 1.5. The AONB Partnership's wish is to enrich the environment of the AONB by the choices that are made in managing and maintaining the highway network. The highway network has developed over a considerable time and is a part of the historic fabric that makes up the area. On occasions, the highway may be the dominant influence on local distinctiveness, such as along a Roman or Turnpike road. More usually, the highway is but one component of the wider landscape, such as a drove road winding across the down. Areas are always open to outside influences, new people, ideas and activities. Things do change. Change may enrich, or homogenize and diminish, an area. Often it is the commonplace things, the locally abundant but regionally unique, that is taken for granted and lost. It is important to demand the best of the new so that quality and authenticity adds richness to the area. (*After Clifford and King, Losing your Place, Common Ground 1993*)
- 1.6. The purpose of this document is to help the AONB Partnership, highway authorities, local authorities, landscape managers, contractors, parish councils and other parties to:
  - a. enable local councils and their staff to understand the significance of highway landscapes,
  - b. encourage residents and visitors to perceive and appreciate the characteristics of the nationally important and designated landscapes from the highway; and
  - c. look after the highway environment sensitively and in harmony with the landscapes.
- 1.7. With these purposes in mind much of the good practice advice within this document is explicitly aimed at the constituent highways authorities which together cover the AONB landscape. However some advice is aimed at landowners, local parish councils and the wider AONB partnership, in these cases this is indicated clearly in the text.

<sup>1</sup> Areas of Outstanding Natural Beauty were established in the National Parks and Access to the Countryside Act 1949 and are now designated under section 82 of the Countryside and Rights of Way Act 2000 for the sole purpose of conserving and enhancing the natural beauty of the area.

<sup>2</sup> The duty is defined under Section 85 of the Countryside and Rights of Way Act 2000.

1.8. This document is designed to celebrate the good practice undertaken by the highway authorities and provide a set of guidelines for all to follow. It is not intended to be a prescriptive set of rules; rather it offers some basic principles and guidance in this nationally important landscape which should be considered in highway maintenance and improvement programmes. Material is presented under topic headings, with some topics containing a series of sub-groupings.

1.9. The guidance is set out as follows:

**Section 1** - An analysis of the constituent parts of a rural road in the AONB - the local distinctiveness and character of each road in the AONB is created by the interaction of the physical components which comprise each road. These have both cultural and natural aspects.

**Section 2** - The rural roads of the AONB in their wider setting - local character and local distinctiveness is also a product of the wider landscape setting of the road.

**Section 3** - Modern highway infrastructure and the rural roads of the AONB - how local character and local distinctiveness are retained through the successful incorporation of modern highway infrastructure.

**Case studies and background material** - to support the good practice advice set out in the sections.

1.10. Each topic is designed to be read separately and is made up of a brief description, illustrations and a table of good practice advice. Good practice examples of sensitive, low maintenance measures that help to protect and enhance the landscape quality of the rural roads network are highlighted. These are presented within each section and in case studies at the end of the booklet. This is especially relevant at a time when resources are constrained. Well designed and sustainable practices can reduce future maintenance costs.

1.11. This guidance is intended to apply to this Area of Outstanding Natural Beauty. With care, the approach can

also be applied to historic parklands, conservation areas and the wider countryside, provided such areas are described in landscape studies that establish agreed benchmarks. The guide is a significant contribution to the achievement of the aims of the European Landscape Convention and its wider adoption is commended<sup>3</sup>.

1.12. There are only a small number of arterial 'A' roads related to a larger network of B and class C roads. The scope for applying some of the guidance and for retaining the rural character of the AONB roads becomes simpler on the B and C class roads. It is, for example, recognised that the range of options possible between the junction of an A and B road is much less than between that of a B road and a C road.



**Roads in the Area of Outstanding Natural Beauty**  
Photograph: Paul Tiplady

<sup>3</sup> The European Landscape Convention was ratified by the UK on the 1 March 2007. The Convention aims to ensure the proper protection, management and planning of landscapes throughout Europe. It provides a framework for co-operation and aims to bring practice in all countries up to the standard of the best. Parties to the ELC undertake to: recognise landscapes in law; establish and implement landscape policies aimed at landscape protection, management and 'landscape planning'; establish procedures for public participation in landscape policies; integrate landscape into 'regional and town planning policies' and 'cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape'; co-operate on the landscape dimension of international policies; exchange experience and information internationally and across frontiers.

## AONB Management Plan

- 1.13. Local Authorities have a **statutory duty** to prepare and publish a management plan which formulates their policy for the management of any AONB in their area and for the carrying out of their functions in relation to it<sup>4</sup>. The current Cranborne Chase AONB Management Plan received the approval of the Secretary of State and was adopted by the Local Authorities in March 2014.

A series of objectives and policies are set out. Those for planning and transportation include as follows:

Objectives		Policy	
<b>PT B</b>		<b>PT17</b>	The Partnership will develop further Position Statements, Fact Sheets and Good Practice Notes together with a Development Management 'checklist' to inform decision makers at all levels on issues affecting the AONB.
<b>PT C</b>	<i>Policies and schemes to meet the housing and employment needs of local communities enhance the special qualities and characteristics of the AONB, including its built heritage</i>	<b>PT18</b>	Work with Local Authority partners to establish policies that encourage appropriate use of sustainable technologies, such as solar thermal, photovoltaics and wood fuel (at the appropriate scale) and provide sufficient space for short term handling of waste and recyclable materials, in both domestic and employment situations and, in particular, within all new build.
<b>PT D</b>	<i>Transportation planning and management takes full account of the AONB designation, protects the tranquillity and special qualities of the landscape and reduces transport impacts on the environment and communities of the AONB</i>	<b>PT19</b>	AONB partner organisations utilise a consistent approach to the design, provision and maintenance of highways and associated features through joint implementation of the 'Conserving and Enhancing the setting of the AONB Rural Road Network' highways guidance.
		<b>PT20</b>	Promote and help develop an integrated system, whereby roads, railways, public transport and Rights of Way networks interconnect, minimising the impact of traffic on the AONB and encouraging a safer and more attractive environment for walking, cycling and horse riding.
		<b>PT21</b>	Seek to minimise freight transport through the AONB to help protect tranquillity, the rural nature of settlements and the special qualities of the AONB
		<b>PT22</b>	Promote the provision of affordable parking facilities at public transport nodes, car sharing and community transport initiatives to enable and encourage a reduced reliance on private cars.

- 1.14. It is recognised in the Management Plan that change is inevitable and potentially beneficial but that the special character of the AONB should be conserved for present and future generations to enjoy. The rural highway network is an intrinsic and valuable element of any area's landscape character. However, the way in which the roads and roadside environment are managed can have a significant effect on rural character, local distinctiveness, heritage and biodiversity. In the AONB there is an expectation that the greatest sensitivity of management will be applied.

<sup>4</sup> The duty is defined under Section 89 (2) of the Countryside and Rights of Way Act 2000.

## Appreciating the landscape

1.15. The principal threats to the landscape rarely come from major development as national and local planning policy seeks to manage this; the main threat comes from a slow, insidious erosion of rural character and local distinctiveness. Local distinctiveness is an elusive concept closely linked to the environment, the economy and the social ambience of a place (factors which make up sustainability). It can be defined as that which makes a place special, differentiating it from anywhere else. Special landscapes are locally distinctive, being the result of a complex history of intervention by man with nature, interpreted by writers and painters and celebrated by local customs. An agreed view about local distinctiveness can be realised through consultation, informed by landscape character assessments and appraisals. Local distinctiveness is easily lost. Examples of subtle changes within the highway network which can diminish local distinctiveness include:

- The gradual erosion of the rural fabric by cumulative changes and creeping development which increasingly destroys the character of a place, through for example the use of excessive signage;
- The destruction of the intimate feel of a place by modern infrastructure such as road widening schemes or lighting;
- Standardised materials and the globalisation of roads with 'national' rather than 'local' designs;
- Poorly planned cost-cutting measures leading to a lack of essential maintenance;
- The loss of local pride in local character and qualities;
- Uncontrolled congestion and disturbance;
- The lack of an agreed vision.

(After Clifford and King, *Losing your Place, Common Ground 1993*)



**A deeply rural area with scattered villages and narrow roads** - Photograph: Carolyn White

1.16. For a full appreciation of the area's landscape character, reference should be made to the AONB Integrated Landscape Character Assessment (LUC 2003)<sup>5</sup>, Historic Landscape Characterisation (*Rouse E 2008*), Historic Environment Action Plans (*Rouse 2010*) and Landscape Sensitivity Study (*The Landscape Practice 2007*) produced for the AONB. Details of specific sites or locations within

<sup>5</sup> Other county or district wide Landscape Characterisations might also be relevant.

the AONB are found in a range of documents including Habitat Surveys, Conservation Area appraisals, management plans and Village Design Statements.

1.17. These studies seek to encapsulate all the features and attributes that contribute to the special and distinctive character of the AONB. These include the physical, ecological, visual, aesthetic, historic and cultural forces that have shaped the present day landscape. They recognize that this is a living and working landscape and consider the social, economic and recreational characteristics that contribute to its current character.

1.18. Cranborne Chase and the West Wiltshire Downs area is deeply rural, with scattered villages and narrow roads. There are no large settlements in the AONB but nearby country towns such as Shaftesbury, Warminster, and Salisbury are growth areas. Although there are a few sites attracting a large number of visitors, such as Longleat, Stourhead and Centre Parcs, the AONB is as yet an undeveloped tourist area (LUC 2003). The rural nature of the AONB means that there is a relatively high car ownership and because the AONB economy is outward looking, people commute across and out of the AONB. With the relatively small centres of population within the AONB, public transportation is largely confined to a limited number of through routes.



**Vale of Wardour**  
Photograph: CCWWD AONB

1.19. The **Vale of Wardour**, the flat Fovant greensand terrace, and the chalk river valley of the Ebbel carve the chalk downlands into two areas. To the north is the elevated whaleback chalk landform of the West Wiltshire Downs rising to a crest at Great Ridge and Grovely Wood. On the north, this chalk landscape slopes steeply down to the wide verdant valley of the River Wylde before rising again onwards to Salisbury Plain.



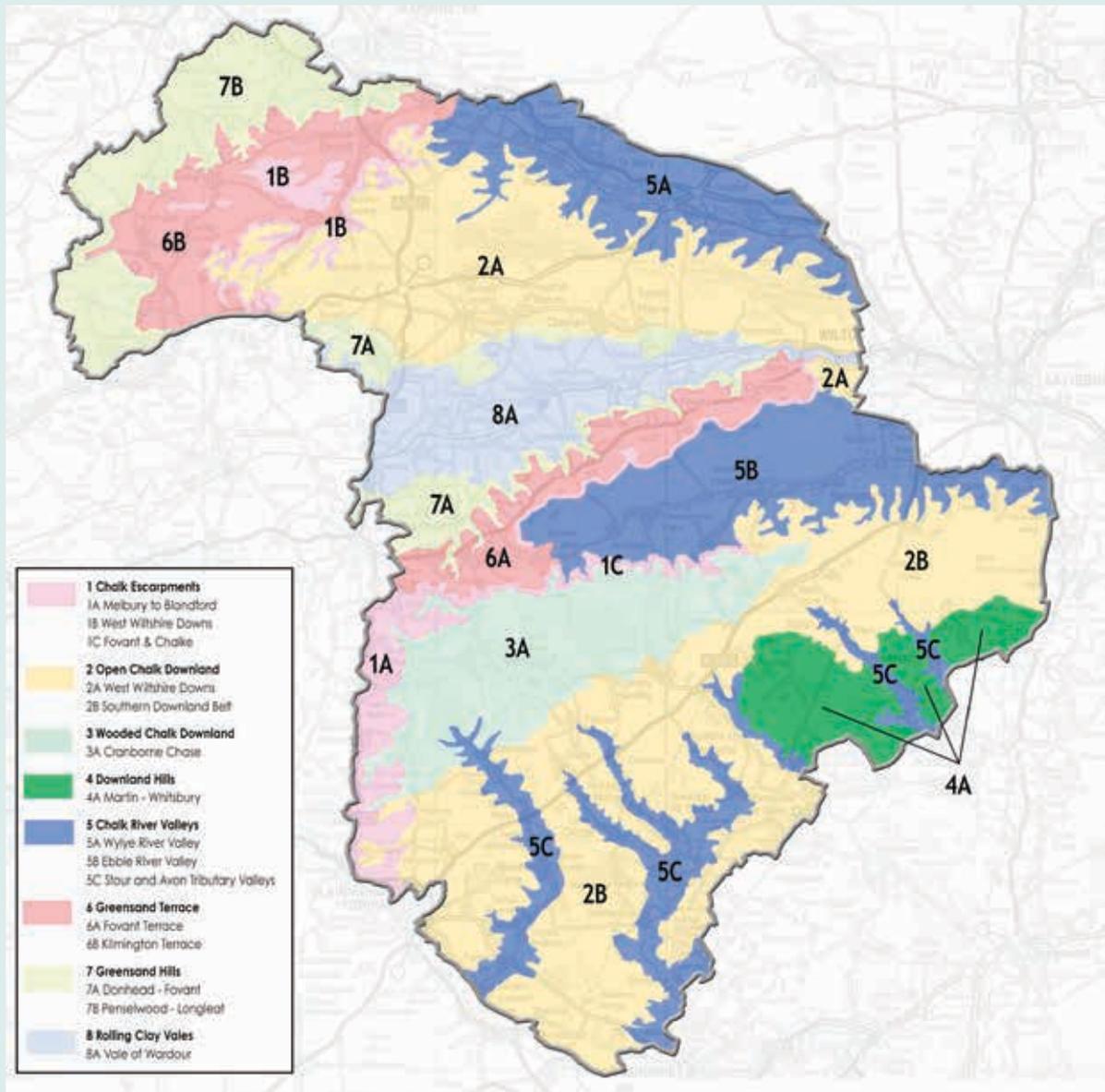
**Cranborne Chase**  
Photograph: CCWWD AONB

1.20. To the south lies the **Cranborne Chase** with its smooth rounded downs, steeply cut combes and dry valleys; the quintessential chalk landscape. The dip-slope gently descends to the south-east, where it meets the Dorset Heaths and is engraved by shallow chalk river valleys. Both chalk areas are fringed by impressive scarps, cresting above the adjoining greensand terraces.

1.21. The Vale of Wardour is formed predominantly of clay with outcrops of limestone. This is a much more intimate landscape of twisty lanes, woods, fields and nucleated settlements which is surrounded by wooded greensand hills.

1.22. In the northwest, an outlying area of greensand hills and terrace forms a sandstone fringe of wooded ridges and valleys which includes rich parklands such as Longleat and Stourhead and abuts the mass of chalk to the east.

1.23. The differing complexity and scales of these landscapes requires subtlety in understanding and managing them.



Map 2: Cranborne Chase and West Wiltshire Downs AONB Landscape Characterisation

One mechanism of conceptualising this complexity is by using the fifteen landscape character areas identified in the AONB Landscape Character Assessment (LUC 2003). These are derived from eight generic landscape character types.

- 1.24. The AONB also incorporates a broad variety of historic landscape character. In historic terms, the landscapes of the AONB today are extraordinarily rich. Evidence of successive eras of human activity and settlements can often be lost but not in this AONB. The landscapes of this AONB offer up evidence of the imprint of man, carved out over the centuries. Prehistoric monuments of national importance,



**Historic Features in the Highway**  
Photograph: CCWWD AONB

historic borderlands, ancient field systems, droves and routeways all have stories to tell.



**Historic Parkland Landscapes**

- 1.25. Cranborne with its hunting chase and Wardour with its park were set within a Medieval world of commons, strip fields and ancient woodlands, the last nibbled into by tiny assarts. Post Medieval planned enclosure and more recently the creation of new large scale fields in the 20th century have reduced the extent of the surviving ancient landscapes, transforming some areas of the AONB. For more information see the AONB Historic Landscape Characterisation and Historic Environment Action Plans (*Rouse E. 2008*).
- 1.26. The AONB is of great ecological importance. Its protected sites range from ancient downland, herb-rich fen and river meadow to scattered deciduous ancient woodland, which includes remnants of the ancient Cranborne Chase hunting area and the former Royal Forests of Selwood and Gillingham.

1.27. Within the AONB there are other special interests designated within their own framework of legislation to protect and conserve them including NNRs, SSSIs and SAMs. These obviously contribute to the overall character of the AONB and together these designations are mutually interrelated.

1.28. The character of each of these areas is sensitive to management actions and changes. The Landscape Sensitivity Study published in 2007 identifies and addresses the broad issues and pressures for change within the AONB (The Landscape Practice 2007). It considers in detail the impact these might have on each of the fifteen landscape character areas.



**Conservation Verges**

Photograph: Wiltshire Council

- 1.29. Highway modification and management is one of a several key pressures which has the potential to impact this landscape character adversely. Conversely sympathetic modification and management has the potential to enhance character.
- 1.30. This document focuses on how this management and maintenance of the highway environment can be best undertaken for the Cranborne Chase Area of Outstanding Natural Beauty.



**Historic Cross** - Photograph: P. Tiplady

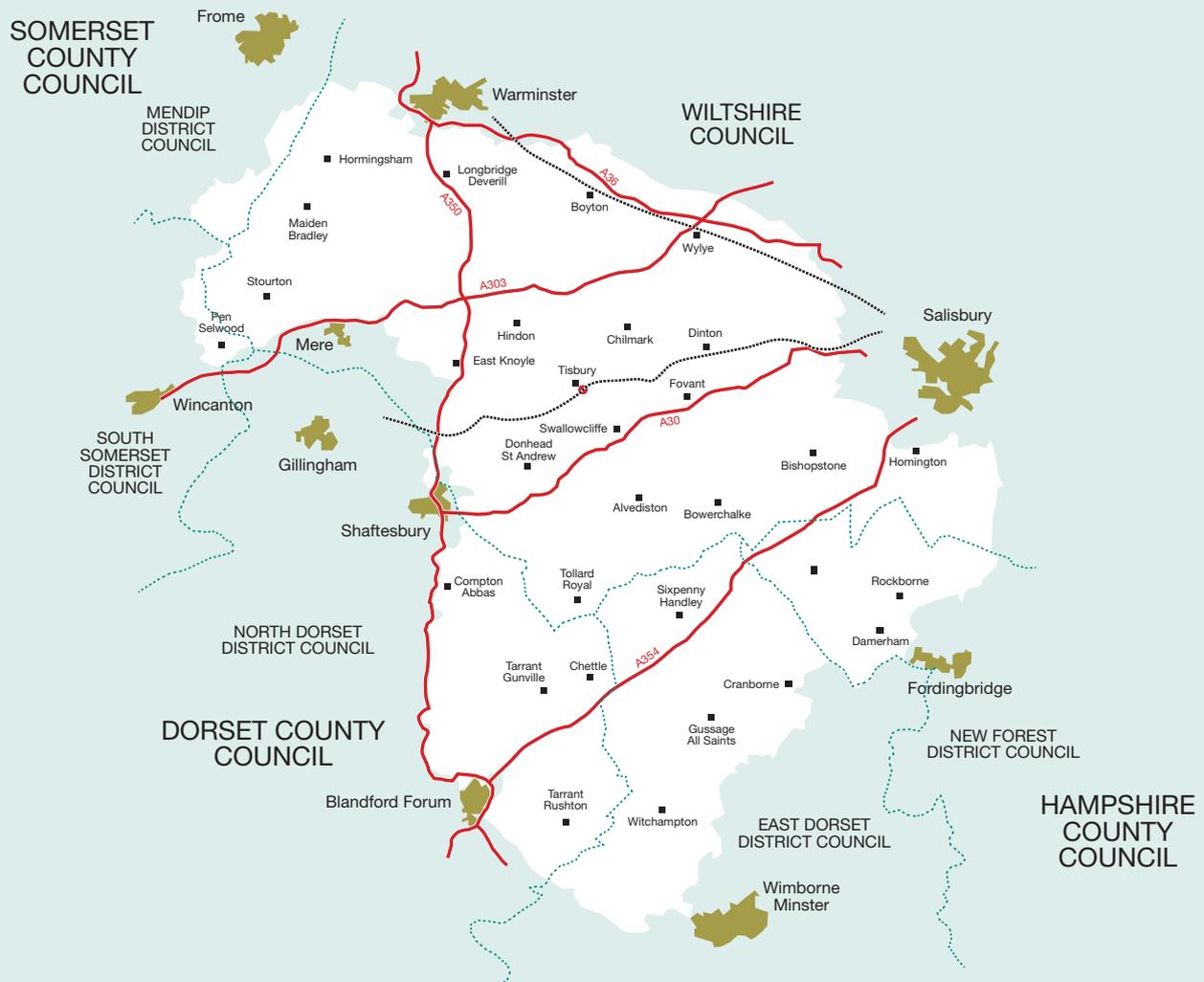
## Highway Authorities

1.31. The AONB lies within four highway authority areas:

- Dorset County Council Highway Authority
- Hampshire County Council Highway Authority
- Somerset County Council Highway Authority
- Wiltshire Council Highway Authority

Highways England is responsible for the planning and operation of the strategic road network (the most important A-Roads in the country) which cross the AONB

The boundaries of each authority's area of responsibility within the AONB are shown on Map 3 (Each authority also has other nationally designated landscapes within their boundaries). The general duties and responsibilities of the highway authorities are shown in Appendix 1.



Map 3: Highway authority boundaries, AONB boundary and A class roads and railways



## The general character of the rural roads

- 1.32.** Modern OS maps show that there are a small number of arterial 'A' roads related to a network of B roads which link settlements within the AONB and provide connections beyond to the market towns (see Map 1). This pattern is overlain by a wider denser network of smaller roads, tracks, bridleways, and footpaths (see Map 4). Many of these route ways are shown on the earliest available maps, are of some antiquity and are intimately related to the wider landscape character of the AONB. The character of these routeways is defined by their surfacing, width, form, boundaries, related features (such as milestones), relationship to settlements and surrounding fields and woodland, and of course their historical development over millennia (e.g. Roman Roads being transformed into drove ways; turnpikes<sup>6</sup> converted to modern highways). Routeways are not only important in their own right but also for their contribution to the wider character of the landscape. The general character of the rural road network is described in more detail in the Historic Environment Action Plans Theme 10 (*Rouse 2010*).
- 1.33.** There is only one major modern north-south route through the AONB on its western side, the A350; however there are a series of parallel east-west routes including the A30, A303 and A354 plus the divergent A36 which

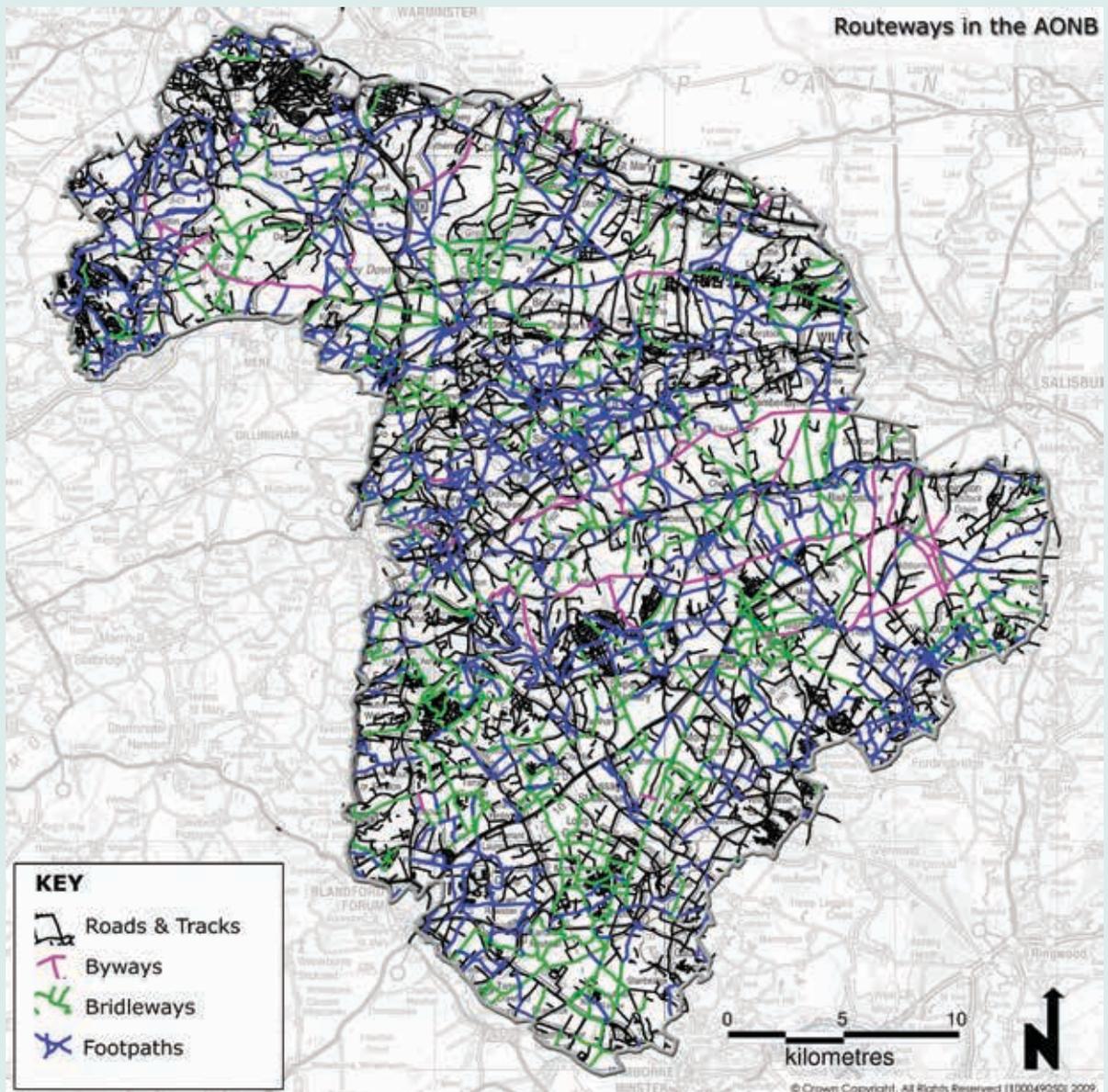
runs between Warminster and Salisbury along the Wylie Valley. In the context of the AONB overall, the modern major highway structure impacts on relatively limited areas around these routes and in particular the A303, A350 and the A36. These three routes have major engineered elements which have large scale impacts on the wider landscape character.

- 1.34.** Former long distance routes tended to run roughly east west across the AONB. These follow sinuous routes on higher ground following local topography across the downland. Today these ancient drove roads consist of modern roads as well as unpaved byways.
- 1.35.** The majority of roads are minor, often twisted and narrow, with steep inclines when they climb onto the downland. With the exception of downland areas, they are often hedged. Sinuous networks of roads, tracks and paths run through the bottoms of the chalk valleys of the AONB. They are often associated with fords and Medieval bridges.



**A350 towards Longbridge Deverill**  
Photograph: Nick Smith

<sup>6</sup> A statute of 1555 made Parishes responsible for highways and this continued until about 1663. It was then decreed that a "Turnpike Trust" could be set up to improve the highway surface. This was funded by the collection of a toll. In 1888, all turnpike trusts became the responsibility of the County Councils



Map 4: Rights of way network in the AONB

- 1.36. The chalk valleys are connected to the downland beyond by systems of straight and relatively perpendicular tracks, bridleways and roads which run from the valley bottoms to the downland above.
- 1.37. Routes across the downland tend to be direct, straighter and longer. These often represent the survival of one main route out of a series of former tracks which snaked unrestrained across the downland but leading to the same destination. The same pattern can often be observed in areas of former common land in the AONB.



Road to the Chalke Valley



Historic Routeway - Photograph: Nick Smith

## Putting a value on the rural road network

- 1.38. Road management can raise emotive responses in relation to landscape because many roads are seen as integral to the local landscape character and thus road improvements can be regarded as an attack on that character.



Photograph: Carolyn White

- 1.39. In landscape terms, roads add benefit in a variety of ways:
- They provide access to a great variety of distinctive local landscapes, to the advantage of residents and visitors alike.
  - The extensive network of verges and embankments provides a range of relatively undisturbed ecological habitats.
  - They continue to follow the locally distinctive landscape pattern, often to the aesthetic benefit of the area's character.
  - They help provide an historical record of how trading and access patterns were established over the centuries.
- 1.40. The integrity of the network can add value to the appreciation and enjoyment of the use of roads. Individual features within the highways help make roads locally distinctive and their cumulative value can be significant. A milestone is interesting to see whereas a set of milestones and toll houses along an old turnpike tells a story.
- 1.41. Clearly, roads have a value in enabling movement. Roads are used by a wide mix of transport modes which includes pedestrians, cyclists and horse riders as

well as private, public and commercial motor vehicles. Service providers are able to pass accessible cables and pipes through the network. They also provide a habitat corridor for wildlife and domesticated animals. The rural street or lane is also a place for social interaction and a location for markets and fairs. It is an integral part of the rural community structure and a significant community asset. (After Dorset AONB, 2005)

## The issues

- 1.42. In order to help interested parties to look after the highway environment sensitively and enable people to appreciate the characteristics of the landscape from the highway, there are a number of actions which can be addressed.

## Taking action when it is not needed

- 1.43. The highway network is a significant community asset that is costly to maintain and improve. There is a need to ensure that the best value for the area is achieved by all actions or non-actions on the network. Interventions should, therefore, only be taken to provide highway solutions and not merely to be seen to be doing something.

### Manual for Streets 2

Advocates the principle of 'Using the minimum of highway design features necessary to make the streets work properly. The starting point for any well designed street is to begin with nothing and then add only what is necessary in practice.'

*Chartered Institution of Highways and Transportation 2010*

## Short term actions

- 1.44. When a problem is identified, the solution must take into account the full value of the rural character to the area. Some interventions are made because there is a need to be seen to be doing something now rather than the long term solution that is really required. Measures such as traffic calming and street lighting can fall into this category.

They can significantly change the rural character of an area but may not be the best solution to the underlying problem.



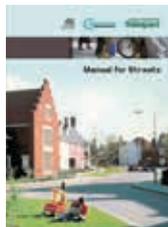
Photograph: Nick Smith

### Using standard solutions

- 1.45. Similarly, there is pressure to make 'one size will fit all' because this simplifies procurement. This supports the inappropriate creep of urban solutions into the rural area, such as the introduction of kerb-stones or road splays. Though road safety is of key importance, the needs of wildlife and the enhancement of landscape character must also be achieved. Maintenance specifications need to allow for the local variations in landscape character including tailoring the use of design and materials.

#### Manual for Streets 2

'Many rural highways require a 'non-standard' approach to respond to context and this can be achieved by working as a multidisciplinary team and by looking at and researching other similar places that work well. It is important to include all skill sets required to meet scheme objectives.'



*Chartered Institution of Highways and Transportation, 2010*

### Planning, providing, and driving for the local conditions

- 1.46. The road network in the AONB is particularly prone to the vagaries of the seasons. Regular users know this and modify their actions accordingly but others do not. The roads do flood and water has to be managed. Frost pockets occur, especially in the sunken lanes or where vegetation traps air. Strategies must take account of the landscape character of the area.

### The 'inappropriate' use of rural roads

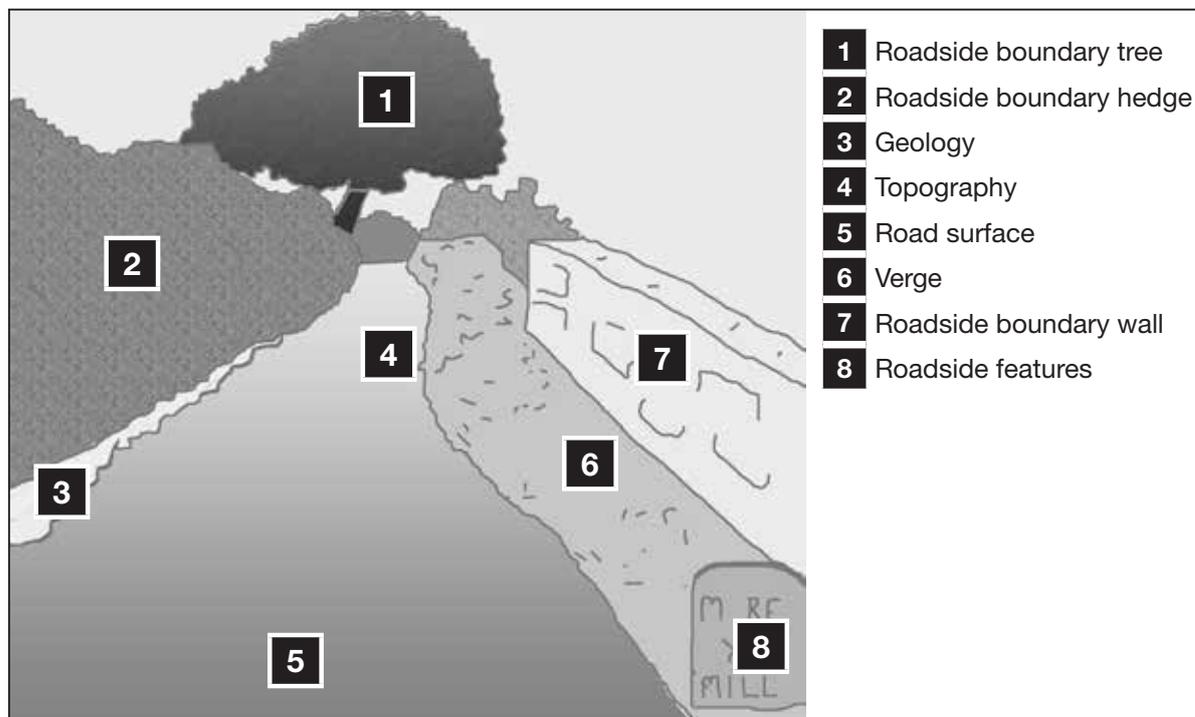
- 1.47. Stories abound of drivers following the guidance of satellite navigation tools rather than common sense. This has resulted in large vehicles damaging the boundaries of narrow lanes or vehicles passing over land where no right of way exists. Sometimes drivers ignore traffic regulations with similar results. Large vehicles may be able to make deliveries or take collections from a farm but that does not mean that the whole route is suitable for general use by large vehicles or trailers leading to erosion of verges or unplanned widening.

### A largely unimproved rural highway network

- 1.48. There are significant commuting flows between the rural and the urban areas. Despite concerted initiatives (such as "Door to Dorset") residents of the rural areas continue to rely heavily on single occupancy car journeys for functional travel. The relationship between market towns and their hinterland is being eroded. Seasonal flows on some highway routes give rise to road congestion and delay at times. (Hardy S. 2010)

## 2. The Guidance

The Cranborne Chase Area of Outstanding Natural Beauty is recognised as a distinct and valued landscape. Our wish is to enrich the environment of the AONB by the choices we make in managing and maintaining the highway network. We must look after the highway environment sensitively and enable users of the highway to appreciate the characteristics of the nationally important designated landscape.



### The constituent parts of a rural road in the AONB

- 2.1. The limit of the public highway for maintenance purposes in rural areas is generally up to the boundary hedges, fences or walls. Highway authorities are not responsible for actions outside of these boundaries. But the highway lies within the wider landscape and when making decisions opportunities should be grasped to take an holistic view.

#### GEOLOGY AND TOPOGRAPHY

- 2.2. The Cranborne Chase AONB is dominated by two areas of chalk interspersed with a range of other geologies including greensand and clay. These give rise to a range of colours and textures that add to the local distinctiveness of the areas, apparent in the local building stone used for houses and walls. Geological features can sometimes be exposed during road improvement and management work. Such operations offer opportunities to reveal hitherto unexposed geological sections, either temporarily during construction, or as permanent features. The geological features exposed by such work can contribute to our appreciation of the natural heritage of the protected area.



Distinctive local building materials on Tisbury High Street

- 2.3. The underlying geology supports a varied topography which the rural roads of the AONB navigate. There are sunken, twisting and narrow lanes with sinuous routes through the clay vale of the Nadder and the chalk valleys, steep roads traversing the chalk escarpments, and lofty expansive roads affording wide views across the tops of the chalk downland and dip slopes.



#### GOOD PRACTICE ADVICE...

### 1. Geology & Topography

- A** There should be a presumption, wherever possible, to maintain interesting or educational geological features exposed in road construction or widening operations. Where loose rock in exposed cuttings presents a hazard to highway users, consideration should be given to stabilisation techniques which retain any significant geological features.
- B** Where practical to do so, the design of road schemes should leave geological exposures accessible, so that these may be visited and recorded by specialist groups and researchers.
- C** Procedures should be adopted to ensure that there is the opportunity for experts to record new exposures revealed during road improvement or similar construction works, including temporary exposures.



Charminster road surface treatment



## THE ROAD STRUCTURE

- 2.4. The surfacing of a road can have a considerable impact on rural character and on people's ability to enjoy the peace of the countryside. The noise of ever increasing traffic levels can carry great distances in open landscapes but appropriate surfacing can reduce noise levels by up to 10 decibels (as can slowing the speed of traffic).
- 2.5. Careful consideration must be given to the use of coloured surfacing materials to demarcate cycle lanes, parking bays, walkways or village threshold entrances within the AONB as these are artefacts associated with urban situations. Coloured surface treatment should not be used unless it can be clearly justified on the grounds that it enhances the effectiveness of a scheme. Highly visible colours have an adverse effect upon the natural beauty of the rural landscape and should be avoided. Aggregates of muted but contrasting colours can be very effective and reflect local character. Where sections of road are to be treated with a high friction surfacing material to improve the skid resistance of the road, an appropriate coloured material should be used to reflect the local geology.
- 2.6. There are still a few examples of more traditional road materials in use. This includes areas of stone sets. Where they exist, they should be retained and maintained.



## GOOD PRACTICE ADVICE...

### 2. Road Structure

- A** Surface dressing to be appropriate, where possible, to the local area in texture and colour, to reflect the underlying geology.
- B** Unless there is an overriding safety concern, the use of inappropriately coloured road surfaces will be discouraged, due to the adverse impact upon the surrounding landscape. Aggregates of muted but contrasting colours can be very effective and reflect local character.
- C** High friction surfacing will be grey unless a clear safety benefit for another colour is identified.

### ROADSIDE VERGES

- 2.7. The limit of the public highway for maintenance purposes in rural areas is generally up to the boundary hedges, fences or walls. The verge is therefore a part of the highway. Verges that are well managed are important for road and traffic safety; as visibility splays (especially near road signs or on corners and junctions); as areas to drain water; and to locate utility infrastructure.
- 2.8. Verges also serve a number of other functions, not least as a safe refuge for pedestrians and horse riders. Well managed verges help create attractive public space to use and enjoy and (as many people drive, cycle, walk or ride on rural roads) they are in the public eye, and part of the local scene, more than any other landscape feature or habitat. Road verges form important wildlife corridors providing links between habitats such as hedgerows, woodland, watercourses, ditches and other grasslands. Their importance lies in their history as traditionally managed habitats and not simply the individual species which are found along their lengths. They help to protect and maintain sustainable populations of flora and fauna and therefore enable species to adapt to climate change. European regulations and legislation may apply:
- European Habitats Directive<sup>7</sup>
  - Wildlife and Countryside Act 1981
- 2.9. Soil conditions, time and frequency of cutting, and use of herbicides and fertilisers largely determine the biodiversity value of grass verges. Cuts carried out too early, or too often,

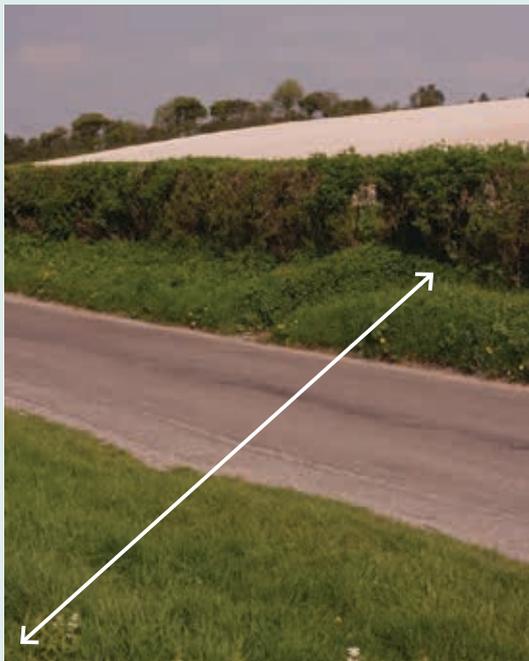
in the growing season can prevent some plants from flowering and/or setting seed. Too late, or not at all, and undesirable weeds or over-dominant species may take hold, to the detriment of less competitive species. Cuts can also be timed to benefit a particular desired species or group. A large number of insects depend on flowers for survival and birds make use of the seeds. Cuts made later in the year (August) encourage annual plants and late flowering perennials. They also give protection to ground nesting birds. Cutting in September/October allows later flowering plants to set seed and many invertebrates to complete their life cycle (*Dorset County Council 2010*).

- 2.10. An occasional full width cut of the verge will be necessary to control scrub encroachment from hedges and hence conserve herbaceous vegetation across the verge. This also maintains traditionally wide verges as open landscape features.



**Highway includes the grass verge but not the wall or drainage channel**

<sup>7</sup> Council Directive 92/43/EEC of 21st May 1992 on the conservation of natural habitats and of wild fauna and flora



Highway includes the grass verge but **not** the hedge

**Wiltshire Council defines its roads under 3 categories and verge cutting varies for each category. Only the first swathe is cut, not the whole verge. Their recommendation is for two cuts a year. C roads are cut first (in May) because they are narrow. This takes four weeks. Therefore, A and B roads get their first cut in June. The second cut is undertaken during October and November. As a result, the C roads are more verdant due to the longer interval between cuts, which suits wildlife and landscape needs. A and B roads have a swathe cut for a pedestrian refuge.**



**Conservation verges, Win Green**  
Photographs: Wiltshire Council



**Marker post, Win Green**  
Photographs: Wiltshire Council

- 2.11. There are many special verges identified within the AONB, where flora and fauna of local or national interest exist. In addition, some verges are of particular visual amenity because of the nature of their floral displays. The conservation and enhancement of these plant communities should be an important aspect of the management of the roadside environment. A few special verges are also identified because of their geological significance. These can also require specific treatment, which can include the removal of vegetation where this might obscure the features of interest.



**Opportunity for road creep**  
Photograph: P. Tiplady

- 2.12. Another important aspect of verges is their historic dimension. A good example of this is the wide verges which exist in areas of current and former common land, for example around Semley in the Vale of Wardour. Verges also contribute to the historic environment as features in them, such as milestones, fingerposts, walls and railings, are often characteristic of the roadside landscape and contribute towards local distinctiveness and sense of place. In addition some verges form a component part of historic boundaries.

- 2.13. Along narrow roads vehicles sometimes over-run the verge. This erodes the vegetation exposing the underlying soil. A similar problem can occur at junctions in narrow lanes or at access points onto the highway. In clay areas this can lead to soil erosion and sediment being washed into watercourses. Much of the AONB is drained by the Avon SSSI/SAC, which is currently largely in unfavourable condition. One reason for this is excessive sedimentation.
- 2.14. A common response to the problem is 'Highway Creep'; that is the metalled surface is extended over the exposed soil. This results in a widening of the road (possibly resulting in an increase in vehicular speeds) and a reduction of verge area. A better solution is to reconstruct the verge and allow the vegetation to re-colonise. Where feasible, wide or long vehicles should be directed on to alternative routes.



#### GOOD PRACTICE ADVICE...

### 3. Verges

- A** Conservation standards should be agreed between the relevant conservation bodies, the AONB team, and the highway authorities, identifying conservation priorities and generic management prescriptions for rural verges within each administrative area.
- B** For the principal roads, specific management prescriptions should be written into verge / highway maintenance programmes.
- C** Maintain the integrity of existing verges during routine maintenance and road improvement schemes. Highway creep into verges should be avoided. Where verges are reconstructed, ensure that watercourses are protected from future damage (e.g. consider the particle size of reconstruction materials).
- D** Opportunities for the survey of the Area's verges by relevant experts should be promoted; to help with the monitoring of existing work and identify new areas with high wildlife, visual, or geological value.
- E** Those verges with high wildlife, visual, or geological value should be identified as 'special verges'. Such special verges should be plotted on GIS to allow easier sharing of data. Specific management prescriptions should be written into verge / highway maintenance programmes and their implementation and effectiveness monitored for each special verge.
- F** To assist grass cutting and other operations when working in the vicinity of special verges, the location of each verge should be identified by the placing of markers at each end of the site.
- G** Consideration should be given to expanding the SatNav system developed by Somerset County Council that alerts the contractor to check a definitive map when approaching a designated site. Details of this scheme are included in the case studies.
- H** The wider AONB partnership should discourage planting of ornamental bulbs on rural countryside verges as this introduces alien species into the AONB's countryside that may compete with indigenous plants and detract from local landscape character.
- I** Where verges are traditionally used by walkers and horse riders, access should be maintained, though it may be temporarily impeded by essential works. When works to verges are carried out, their subsequent use by walkers and horse riders should be considered and included within the design / works.
- J** Measures should be considered to reduce parking on verges, particularly those identified as having important flora and which reflect local character.
- K** During winter maintenance, all reasonable steps should be taken to avoid salt being applied to anywhere except the carriageway. Regular calibration of salt spreading vehicles should avoid salt wastage and help to protect verges. Pre-wetted salt or dry-spread rock salt with an additive should be used to assist accurate spreading and avoid wastage.
- L** Traditionally wide verges should be maintained as open features and prevent scrub encroachment by an occasional full width cut.

## ROADSIDE BOUNDARIES

2.15. Roadside boundaries are formed by a variety of features:

### Historic boundaries

2.15.1. Historic boundaries, including county and parish boundaries, are found across the AONB and in many places cross or run alongside roads. These can be substantial features. They tend to be associated with well formed boundary features, including ditches, banks, boundary stones, and boundary pits.



#### GOOD PRACTICE ADVICE...

#### 4. Historic Boundaries

- |          |                                                                                                                                                                                                                                                                      |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b> | <b>In advance of any works that may affect roadside boundaries, check whether they are subject to any protection, such as a Scheduled Ancient Monument or Listed Building. If they are, then seek advice from the council archaeologist or conservation officer.</b> |
| <b>B</b> | <b>Maintain the integrity of existing boundaries during routine maintenance and road improvement schemes.</b>                                                                                                                                                        |
| <b>C</b> | <b>Information about the features and characteristics of the historic landscapes of the AONB can be found in HLC and HEAPs</b>                                                                                                                                       |

### Hedges

2.15.2. Hedges are found across the AONB and are the most common boundary found in the area. However, many of these hedges, especially across the chalk downland, are fairly recent in date (being less than 150 years old) and in some instances dating to the post war periods. Historic hedgerows, often associated with well formed banks and ditches, are a particular distinctive feature of the Vale of Wardour, the Downland Hills and the chalk river valleys. In those parts of the AONB where hedges are characteristic they can be very old, rich in wildlife and visually very attractive. They can be very diverse and contain protected species such as dormice or nesting birds. They provide opportunities for species dispersal and can be used as sight lines and foraging habitat for bats. The successful conservation of these hedges contributes to the characteristic landscapes and wildlife of the area. As mentioned earlier, European regulations and legislation may also apply:

- European Habitats Directive<sup>8</sup>
- Wildlife and Countryside Act 1981

2.15.3. They may also have landscape or historic value and may be classified as 'Important Hedgerows' under the Hedgerow Regulations 1997. These regulations offer protection for hedgerows that are of significant archaeological, historic, wildlife or landscape value. Permission is normally required before removing hedgerows that are at least 20 metres in length, over 30 years old and contain a certain number of botanical species. The local planning authority should assess the importance of the hedge against the criteria set out in the regulations<sup>9</sup>.

2.15.4. The creation of new hedges may have wildlife benefits but may not be in keeping with the landscape or historic character of the area, especially across the chalk downland. A special characteristic of the downland is the wide vistas and long views. The planting of a hedge will block out the view of the surrounding countryside.

2.15.5. Proactive management of hedgerow vegetation is required to maintain their vigour, longevity and wildlife value. This might include coppicing, laying and planting-up gaps. The maintenance of a hedge usually the responsibility of the landowner. Only trees and shrubs within the highway curtilage are the responsibility of the highway authority. Section 138 of the Highways Act 1980 forbids the planting of a hedge within a highway without permission. Section 154 gives highway authorities the power to require landowners to carry out cutting or

<sup>8</sup> Council Directive 92/43/EEC of 21st May 1992 on the conservation of natural habitats and of wild fauna and flora

<sup>9</sup> This is a combination of its intrinsic as well as its contextual virtues. Historic England advises that where a positive value is ascribed to an asset the presumption should be in favour of retention, ideally in situ.



**Landscape character is of long views**

Photograph: P. Tiplady



**Hedgerow Management**

Photograph: P. Tiplady

felling to ensure that their hedge, tree or shrub does not obstruct highway users, or obscure visibility including illumination from street lights. Section 148 of the Act also requires the proper removal of parings from cutting works. The guidance below is aimed at both highway authorities and land managers as each has differing responsibilities.



**GOOD PRACTICE ADVICE...**

**5. Hedges**

- A** Maintain the integrity of existing hedges during routine maintenance and road improvement schemes. Highway creep into bank footings should be avoided, and gateways through such banks should be faced in locally suitable material.
- B** If an 'Important Hedge' needs to be removed for essential road works, the practicality of translocation / moving the hedge should be considered in the first instance. Archaeological recording and supervision may be required.
- C** Road resurfacing is normally undertaken in warm conditions and where a hedge directly abuts the road the hedge must be cut back; this will conflict with the bird nesting season. To minimise the impact upon wildlife, only the bottom 1 m of the hedge facing the road should be cut at that time.
- D** Hedges should not be flailed, laid or coppiced between late March and August inclusive (or September where late-breeding birds are likely to be present). Cutting in the latter part of the winter results in a slower growth during the year and the retention of berries for wildlife for longer than would an earlier cut. The road side of the hedge should require no more than annual cutting, dependent on its proximity to the highway. Where there is no verge between the hedge and metalled surface, a late summer cut may be considered to ensure the safety of pedestrians and riders. Trimming on a three year cycle should be encouraged where road safety is not an issue.
- E** If, for reasons of safety, there is no alternative but to cut a hedge during the bird nesting season, then a bird nesting survey must be carried out by a suitably qualified ecologist/ ornithologist two days prior to commencement of work. If birds are found to be nesting, then an exclusion zone each side of the nest must be put in place.
- F** Mature hedgerow trees should not be routinely cut, as they are an important feature of hedgerows. They enhance the local landscape character and support wildlife, especially bats and birds.
- G** A landscape and visual impact assessment should be completed by a suitably qualified landscape architect whenever a new hedgerow is being considered.
- H** If replacing a hedge, species should be planted to replicate and enhance the old hedge, including any mature trees that were removed. If a new hedge is planted, then the chosen species should reflect the landscape character of the area<sup>10</sup>.
- I** All work on hedgerows should be carried out in accordance with the Hedgerows Regulations (1997) and the relevant wildlife legislation.

<sup>10</sup> In Dorset, reference should be made to County Landscape Character Assessment (Harris, T. 2008) and the accompanying Landscape Management Guidelines (Harris, T. 2008), as well as the Cranborne Chase and West Wiltshire Downs AONB Landscape Character Assessment (LUC 2003).

## Trees and Woodland

**2.15.6.** Woodland is a major component of the landscape of the AONB. Many areas of woodland in the AONB have medieval origins and are associated with ancient trees, coppices and semi-natural habitats. Just as important are the post 1800 additions to the woodlands of the AONB. These include new geometric blocks of woodland used as game cover which have been imposed on some areas of downland. Just as striking are the ornamental additions linked to the creation of the great 18th and 19th Century landscape parks of the AONB, and the creation of tree lined routes and avenues. Although many areas of old woodland have been cleared or replanted since the medieval period, the general trend over the last 200 years has been towards a more dispersed woodland landscape punctuated by ancient blocks of woodland. There are exceptions to this pattern; for example around the Donheads, in the Vale of Wardour, ancient enclosures and assarts nestle alongside dispersed bands of ancient trees and ‘wooded-over’ common land.



**2.15.7.** The AONB holds an important aggregation of superb ancient and veteran<sup>11</sup> trees in part due to the existence of several large medieval hunting areas in the AONB which had ancient woodland at their core. Trees of 400 years of age or more are not uncommon in the area.

**2.15.8.** Only trees and woodland within the highway curtilage are the responsibility of the highway authority. Section 154 gives highway authorities the power to require landowners to carry out cutting or felling to ensure that their hedge, tree or shrub does not obstruct highway users, or obscure visibility including illumination from street lights. Any tree that overhangs the carriageway must have a clearance to allow for the unobstructed passage of high vehicles. Section 148 of the Act also requires the proper removal of parings from cutting works.

### Highway clearance by class of road

<b>A Road</b>	7 metres plus
<b>B &amp; C Road</b>	6 metres plus
<b>D Road</b>	5.4 metres plus

**2.15.9.** Trees, especially Ancient (or Veteran) Trees, are important habitat, landscape and cultural features. The Planning Authorities can offer protection to trees and woodland by identifying them in Tree Preservation Orders or where they lie within a defined Conservation Area. Once identified, planning consent may be required before works are carried out<sup>12</sup>. Outside settlement boundaries, the Forestry Commission should be consulted before removing trees as, in some instances, it may be necessary to obtain a felling licence before the work can be carried out<sup>13</sup>.

**2.15.10.** There are several important sources of guidance to follow and a number of British Standards apply. Particular attention should be paid to:

<sup>11</sup> Defined by Defra as trees that are or look old relative to others of the same species. Characteristics include: very large girth for the species; hollow or hollowing trunk; and a large quantity of dead wood in the canopy. Environmental Stewardship Farm Environment Plan Guidance 2006.

<sup>12</sup> Town and Country (Tree Preservation) (England) Regulations 2012 (SI 2012/605) - Planning permission is not required if a tree is dead or dangerous.

<sup>13</sup> No licence is required if the tree is dangerous or creating a nuisance, which would be the case if a S154 notice is issued. In such cases it is not necessary to consult the Forestry Commission.

- BS 3998 - Tree Works;
- BS 5837 - Guide for Trees in Relation to Design, Demolition and Construction; and
- The National Joint Utilities Group guidelines for planning, installation and maintenance of utility services in proximity to trees. (*Publication N<sup>o</sup>.10, April 1995*)

2.15.11. Regulations and legislation also applies:

- European Habitats Directive;<sup>14</sup>
- Wildlife and Countryside Act 1981; and
- Legislation and guidance relating to Tree Preservation Orders.

2.15.12. Road schemes sometimes include the planting of trees and shrubs within the highway curtilage to mitigate their landscape and wildlife impacts. Such landscape planting must be appropriate for a rural location and be managed to ensure that it achieves the original design objectives and to avoid highway problems.



#### GOOD PRACTICE ADVICE...

### 6. Trees and Woodland

<b>A</b>	<b>Adopt and implement an appropriate strategy for the inspection of highway trees which balances the risks that they present with the landscape benefits of their retention.</b>
<b>B</b>	<b>Felling of roadside trees should be regarded as a measure of last resort and other measures such as pollarding or crown reduction should be considered first. Replanting should be considered on the same site.</b>
<b>C</b>	<b>In advance of any works to roadside trees, check whether these are subject to any protection, such as a Tree Preservation Order.</b>
<b>D</b>	<b>Any new planting proposed for road schemes should be planned into its early stages, with appropriate advice from the AONB team, and use only species native to the area. The stock used should be of local provenance where this is available.</b>
<b>E</b>	<b>All areas of landscape planting should have their original design objectives and appropriate management prescriptions documented within a Landscape Management Strategy, which is used to guide ongoing maintenance.</b>
<b>F</b>	<b>Pruning, coppicing or pollarding of roadside trees should only be undertaken for immediate safety reasons and to keep a tree healthy (on the advice of a qualified arboriculturist).</b>
<b>G</b>	<b>Material left after cutting should be removed immediately as it will impede the growth of ground flora. Chipped arisings should not be left on botanically important verges or in drainage ditches as they will initially suppress plant growth and impede drainage before adding nutrients as they decompose, so favouring the more vigorous species.</b>

<sup>14</sup> Council Directive 92/43/EEC of 21st May 1992 on the conservation of natural habitats and of wild fauna and flora.

## Injurious and invasive weeds

**2.15.13.** The Weeds Act 1959, the Wildlife & Countryside Act 1981, the Ragwort Control Act 1993 and accompanying guidance<sup>15</sup>, all aim to address the problems of injurious and invasive weeds. Injurious plants are those that can cause injury or harm. There are five injurious weeds which are classified under The Weeds Act 1959. These are:



**Common Ragwort**  
*Senecio jacobaea*



**Spear Thistle**  
*Cirsium vulgare*



**Creeping Thistle**  
*Cirsium avense*



**Broadleaved Dock**  
*Rumex obtusifolius*



**Curled Dock**  
*Rumex crispus*

**2.15.14.** Whilst not an offence for these weeds to grow on highway verges, they must not be allowed to spread to agricultural land, particularly grazing areas or land used to produce hay or silage. The Ragwort Control Act 2003 resulted in the introduction of a specific Code of Practice relating to the control of ragwort, with this related to the level of risk that it presents. Routine cutting of verges can help to control these species to some degree but additional control measures are necessary where these become particularly frequent and present a significant risk of spread. The removal of Ragwort should follow the latest DEFRA guidance<sup>16</sup>.

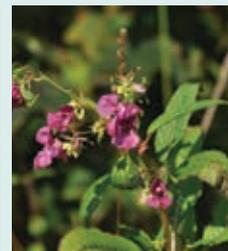
**2.15.15.** There are a range of other invasive weeds which are frequent in roadside locations and which require specific attention, in particular Japanese knotweed (*Fallopia japonica*), Giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*). Only Himalayan balsam is covered by the Weeds Act 1959. The other two species are dealt with under the provisions of the Wildlife and Countryside Act 1981. The 1981 Act makes it an offence to cause the spread of these species. Whilst there is no legal requirement to control these, action is necessary to prevent their spread. In addition, special precautions must be adopted in relation to invasive knotweeds to prevent their inadvertent spread during routine highway maintenance activities. Japanese knotweed is found on a number of sites throughout the AONB and is controlled by spraying. Giant hogweed is recorded on one site.



**Japanese Knotweed**  
*Fallopia japonica*



**Giant Hogweed**  
*Heracleum mantegazzianum*



**Himalayan Balsam**  
*Impatiens glandulifera*

**2.15.17.** The threat presented by these is recognised by The Invasive Non-Native Species Framework Strategy (Defra 2008) but a co-ordinated approach to their control has yet to be adopted.

**2.15.18.** Bracken (*Pteridium aquilinum*), although not covered by the Weeds Act 1959, does cause problems on many verges in the area and a suitable management plan needs to be adopted for its control. Originally a woodland species, it now occurs in a wide range of habitats where it is often a vigorous and aggressive competitor. It commonly invades lowland grassland and heathland.

<sup>15</sup> [www.defra.gov.uk/farm/wildlife/weeds/index.htm](http://www.defra.gov.uk/farm/wildlife/weeds/index.htm)

<sup>16</sup> [www.defra.gov.uk/publications/files/pb9840-cop-ragwort.pdf](http://www.defra.gov.uk/publications/files/pb9840-cop-ragwort.pdf)



#### GOOD PRACTICE ADVICE...

### 7. Injurious and Invasive Weeds

- A** Highway inspection regimes should be used to identify rural verges at risk from invasive weeds and appropriate maintenance or control programmes adopted to address this appropriately.
- B** Plans of the distribution of highly invasive species on roadside verges, especially the invasive Japanese knotweed, should be kept to facilitate their effective control, avoid their inadvertent spread, and allow easier sharing of data.
- C** Knotweed removal should follow latest DEFRA guidance. Where invasive knotweeds are cut, these cuttings should be treated as contaminated waste to prevent their spread.
- D** The use of herbicides on roadside verges should be kept to a minimum to limit environmental impacts. However, appropriate herbicide control regimes should be employed, where necessary, to control injurious and invasive species.
- E** Soils used in highway schemes should be from an approved source to avoid the introduction of alien weeds which are known to be spread this way.

### Walls

- 2.15.19.** Walls are not dominant in this AONB's open countryside but they are common in association with buildings and can often have historic significance. Walls are a common feature through and on the edge of settlements especially in the chalk river valleys. These often abut directly on to the road. The style of walling varies throughout the area due in part to the locally distinct building materials available including flint, brick, greensand, Tisbury and Chilmark stone, and cob and thatched walls.



#### GOOD PRACTICE ADVICE...

### 8. Walls

- A** Care should be taken with repair and maintenance to ensure that only local materials are used and that the walling style reflects local tradition.
- B** New walls should closely follow the style of the local area. They should be constructed using traditional methods and local materials.
- C** Where road works necessitate the removal of a stone wall, or part of a wall, the stone should be retained, and the wall rebuilt in the same style, on a new alignment, Archaeological recording and supervision may be required for those of historic interest. Any un-used stone should be recorded in a Site Waste Management Plan before storing for re-use.



Walls in the AONB - Photographs: P. Hardy and C. White

## Fences

- 2.15.20.** Post and wire fences are found dividing up the steep chalk escarpment or across wider downland areas. Their use, and the uniformity of their appearance, can have a suburbanising effect on the surrounding landscape, particularly if placed upon the sky-line. However, in areas where hedgerows were not traditionally located, visually porous fences can help to maintain a sense of openness. This is especially the case across the recently enclosed downlands of the AONB, which formerly comprised open chalk downland. The wildlife value of a fence line is low when compared to a hedge or wall. Fencing may be needed to protect newly planted areas from grazing animals and trespass.
- 2.15.21.** Traditional cast iron fences are often associated with estates especially bordering areas of parkland. A classic example is on the B3081 on the Rushmore Estate but other examples are found across the whole of the AONB.



Fences in the AONB - Photographs: P. Hardy and T. Rich

Traditional estate fencing at Fonthill



### GOOD PRACTICE ADVICE...

#### 9. Fences

- A** Where new works are undertaken and fences are used, post and wire is preferred as this is visually porous and so blends into the landscape, except where a distinctive estate style of fencing is present.
- B** Under highway schemes involving land-take and new fencing, fences should not follow the skylines as they may dominate and detract from the view of the surrounding countryside.
- C** The use of stand-alone fences as roadside boundaries should be avoided; mounds, hedges, walls or open boundaries are preferred. These should echo the landscape character.
- D** Landowners should ensure that fences erected to protect newly planted areas are removed once the vegetation is established.

## Gates

- 2.15.22.** There is no single, agreed, vernacular style of gate within the Area. There is an array of locally distinctive gate styles tailored to the various Estates within which they were originally situated.



### GOOD PRACTICE ADVICE...

#### 10. Gates

- A** Where any locally distinctive types of gate are currently used landowners should be encouraged to retain them or replace with a similar style.
- B** In all other cases, landowners should be encouraged to use wooden five-bar, rather than metal, gates. Similarly these should be used when highway works create the need for a new access or the replacement of existing gates. These complement the naturalness of the surrounding landscape.
- C** Gate posts and piers should reflect the style used locally.

## HISTORIC ROADSIDE FEATURES

- 2.16. There are many historic, traditional or culturally significant features and monuments associated with the roadways. Some, such as direction stones, milestones, parish boundary markers and finger posts are accepted as belonging to the highway authority. Others, such as water pumps, water troughs, stocks and crosses are usually said to belong to the adjacent landowner. Old lamp posts will generally be a highway responsibility but may belong to the landowner or parish council. Toll houses were once part of the highway but are now quite separate. There is a need for an audit of the historic highway structures to clarify responsibility which could be championed by the AONB partnership.
- 2.17. Many of these features are capable of being listed or scheduled as ancient monuments or of lying within a conservation area; statutory consent of some description may be required for even the most minor of works. There is a need to consult local authority planning and conservation officers.



Historic Cross - Photograph: P. Tiplady

### Crosses

- 2.17.1. Roadside crosses are often nationally significant monuments, being either listed or scheduled as a part of our medieval heritage. Though usually more visible than milestones, crosses are also vulnerable to traffic and maintenance damage. Their setting is particularly important, as they are usually located in

relatively isolated lanes and junctions. In some cases the former location of a cross is now only represented by a cross base the importance of which may not be readily recognisable.

### Lamp posts

- 2.17.2. Old lamp posts have both historic and cultural significance. Some are relics of a bye-gone age and others are commemorative features linked, for example, to royal events. Again, their setting is important and they are at risk when they can no longer function as street lighting.



Traditional Lamp Post Tisbury - Photograph: S. P. Hardy

### Milestones, Parish Markers and Tollhouses

- 2.17.3. Stone milestones and parish boundary markers are a distinctive feature in the AONB. A survey of the location and condition of many of them has been completed by the Milestone Society. Milestones are not always obvious features. They are particularly vulnerable to vehicular damage but can also be damaged during road-works, other development and by highway maintenance such as verge trimming. They are commonly made of stone but cast iron mileposts also exist.
- 2.17.4. Sets of milestones marking the route of a former turnpike are also an important feature. These can also be associated with toll houses and indicative place names.



**Milestone** - Photograph: P. Tiplady

- 2.17.5.** Toll houses are characteristic of the Turnpike era and the creation of the modern road network. A statute of 1555 made parishes responsible for highways and this continued until about 1663. It was then decreed that a “Turnpike Trust” could be set up to improve the highway surface. This was funded by the collection of a toll. Turnpikes represent the first systematic system of ‘made’ roads across the country since the Roman roads. Created by Act of Parliament the turnpikes of the AONB remain as fairly legible components of the historic network.
- 2.17.6.** The heyday of the turnpike roads was extinguished by the coming of the railways in the 19th century. Highway districts were created under the Highways Act of 1862 following the breakdown of the Turnpike Trusts. These paved the way for the modern highway authorities.
- 2.17.7.** Though no longer a formal part of the highway estate, toll houses are distinctive buildings and contribute significantly to the streetscape and sense of place. Many are listed buildings. It is important that their traditional character and fabric is maintained especially where refurbishments are undertaken. Their proximity to the highway means that they can be vulnerable to damage from vehicles. Sympathetic measures to protect them that are in keeping with their traditional highway setting should be considered.

## Water pumps and troughs

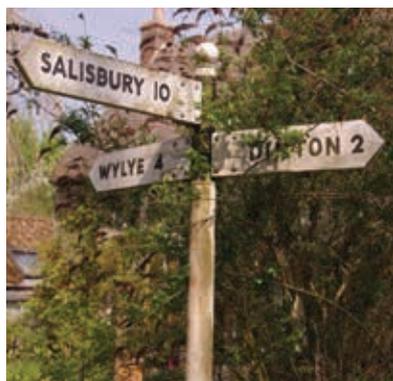
- 2.17.8.** Water pumps and troughs can be either simple structures or more elaborate with benefactor history (either inscribed or known in local folklore or other forms of record). They reflect the past use of the highway by animals, add character to the streetscape and are often listed. Their proximity to the highway means that they can be vulnerable to damage from vehicles.



**Old well in the highway verge** - Photograph: P. Tiplady

## Fingerposts

- 2.17.9.** Black and white destination fingerposts are locally distinct, with wooden posts and fingers being common in Wiltshire and cast iron examples with roundels more common in Dorset. In Dorset there is a tradition of displaying the name or grid reference of cross roads on the finger posts. It is important that the traditional posts are not only retained but re-instated where lost, as they strengthen the “sense of place” and help celebrate local distinctiveness and culture.
- 2.17.10.** For a while, a representation of a ‘Devon’ style of finger post was used in Wiltshire. Given the strength of the local vernacular posts, this trend should be resisted.



Cast iron posts common in Dorset



Wiltshire wooden posts



'Dorset' style finder post roundel  
Photographs: S.P. Hardy and P. Tiplady



Cast iron post in Somerset



Imported 'Devon' style wooden posts



**GOOD PRACTICE ADVICE...**

**11. Historic Roadside Features**

- A** Roadside features should be sensitively repaired when required and preserved; and their setting conserved. The surveying or 'adoption' of such features by community based conservation groups should be encouraged<sup>17</sup>.
- B** The setting of toll houses, water pumps and troughs in relation to the highway and associated structures (such as bridges) should not be compromised by inappropriate development or unnecessary or unsympathetic signage or road markings.
- C** Contractors should be explicitly made aware of the presence of milestones, mile plates and crosses, and instructed to work sensitively around them. If it is necessary to remove a feature during the course of work then the county archaeologist should be notified.
- D** Management agreements with Historic England should be considered in respect to listed and scheduled features.
- E** The highway authorities and partners should seek funds for the routine and emergency repairs to historic structures. Heritage Partnership Agreements could be a way of managing aspects of the highway estate.
- F** Fingerposts should be retained using the most traditional material possible, but also accepting that in some instances a more modern material may be preferable to the loss of the feature in its entirety.

<sup>17</sup> See Case Studies: Audit of traditional finger posts and Refurbishment of traditional finger posts.

## CROSSINGS

- 2.18. The highways pass through or over a range of water and other obstacles:

### Water courses and drainage

- 2.18.1. The highway authorities are responsible for maintaining bridges, culverts, balancing ponds and gullies associated with the highway. Ditches in general are the land owners' responsibility. The mosaic of features found in rivers and streams throughout the AONB support a diverse range of plants and animals. For example, riffles and pools support various aquatic species, whilst exposed sediments such as shingle beds and sand bars are important for a range of invertebrates, notably ground beetles, spiders and crane flies. Marginal and bank side vegetation support an array of wild flowers and animals such as great crested newts, water voles and otters. The chalk streams are rare in Britain and it is therefore important both to protect and enhance these and other riparian habitats during and after any work.



Highway culvert - Photograph: P. Tiplady

- 2.18.2. In settlements, it is quite common for the highway to run along one bank of a water course whilst the buildings lie on the other. Access to each property is by small bridges. These bridges are usually the responsibility of the landowner but their appearance can have a considerable effect upon the setting of the settlement and the character of the AONB.



Wayside watercourse

- 2.18.3. When engineering operations are undertaken there is a need to consider how to manage water run-off and flood risk. The Flood and Water Management Act 2010 provides for more comprehensive management of flood risk. The National Planning Policy Framework gives priority to Sustainable Drainage Systems (SDS) and introduces a general presumption that they will be used. SDS are being incorporated in other planning policies as they are revised. Schemes can be designed to work with natural features, such as ditches or ponds, and to form an integral part of hard and soft landscaped areas (*Environment Agency 2003*). SDS are designed with three objectives in mind:
- to control the quantity and rate of run-off from a development;
  - to improve the quality of the run-off;
  - to enhance the nature conservation, landscape and amenity value of the site and its surroundings.
- 2.18.4. The highway authorities have a prescriptive right to drain roads onto adjoining land by way of drainage channels known as 'easements'. On steeper slopes, water running down the road edge can erode both the road surface and the adjoining bank. Gullies or channels are often constructed to guide water into ditches but poor choice of materials can detract from the local landscape character and be a safety

hazard to shod animals (e.g. poor friction on concrete). They can rapidly increase water volumes during prolonged or heavy rainfall and, without management, can wash silts, oils, salt and other deposits off roads and into water courses.

Natural England has set as a high priority the reduction of roadside verge erosion leading to sedimentation washing into water courses, especially SSSI/SAC river systems (such as the Hampshire Avon System). Evidence suggests that a significant amount of silt entering the Hampshire Avon SAC has its origins in road verges (5%-20% estimate, depending on sub catchment).



**GOOD PRACTICE ADVICE...**

**12. Water Courses and Drainage**

- A** Where appropriate, new drainage works should use traditional local materials.
- B** Concrete drainage channels (with or without metal grating) at the side of roads should be avoided but where used should be the minimum width, as shod horses cannot gain a secure grip on concrete surfaces and they are visually intrusive.
- C** Steps should be taken to avoid pollution of adjacent land and watercourses during all maintenance of the carriageway.
- D** Pollution interceptors should be installed where the carriageway drains into watercourses and onto verges identified as being important for wildlife or landscape conservation.
- E** Natural England should be consulted whenever there is a change to the highway drainage regime where water may drain onto land that is an SSSI/SAC or into a river system that is an SSSI/SAC
- F** Ditches - In most cases ditches are the responsibility of the adjacent landowner. Designs for new works should favour the use of open ditches. Where space permits, the use of swales<sup>18</sup> should be preferred to piped systems.
- G** The culverting of ditches or watercourses should be avoided if possible, though it may be beneficial on some species rich verges, where ditch maintenance may damage the flora.
- H** The traditional association between the settlement and the river, often reflected in the small bridges which give access to cottages, should be reflected in new development. Culverting of streams through villages should be resisted and fords retained. Where opportunities arise, culverts constructed in the past should be removed to reveal the open stream.
- I** When road improvements or development is proposed, Sustainable Drainage Systems need to be considered early in the site evaluation and planning process, as well as at the detailed design stage. The arrangements for adoption and future maintenance of the system should be considered during the early stages of design. It is recommended that maintenance should be the responsibility of a publicly accountable body.
- J** In maintaining open ditches, careful consideration should be given to minimising the removal of material from bank sides during re-grading or clearing works. Work should be carried out between November and February.

<sup>18</sup> Shallow depressions that provide for drainage

## Bridges

- 2.18.5. There are many bridges for both pedestrians and vehicles in the AONB. These crossings form part of the fabric and character of the area; they define points along the journey.
- 2.18.6. Maintenance work on existing bridges and the future design of new ones needs to reflect the character of the surrounding area in order to ensure that bridges continue to play a positive role in reinforcing that character. Works may arise for several reasons, such as general maintenance, strengthening to current standards or enhancing a sub-standard bridge, or replacement which may result from deterioration, flood or accident damage. There is a requirement for Highway Authorities to sign some bridges.



Tarrant Monkton bridge and ford

- 2.18.7. There may be conflict, when renovating an existing bridge, between the standards (if any) which applied when the bridge was built and the current design standards. White wooden safety barriers are a common feature within the area but these are being replaced with galvanised metal barriers. Assessment of the risk posed by departing from standards would also need to be considered. Listed building status places a responsibility on the highway authority to consult with Historic England and the relevant local planning authority before work is undertaken.
- 2.18.8. There are many old and special bridges in the chalk river valleys of the AONB. These include medieval clapper bridges adjacent to fords.



### GOOD PRACTICE ADVICE...

#### 13. Bridges

- A** Repairs and renovations should use traditional materials and methods, including use of lime mortar, to match the existing structure. Heritage Partnership Agreements could be a way of managing listed structures.
- B** Where an assessment dictates changes to the structure, works should be to the highest design standards and reflect local character.
- C** New bridge design should complement the surrounding landscape and architecture. Whilst innovative design is not to be discouraged, it should be of a nature and scale which complements and preferably enhances its setting.
- D** All works to bridges should take full account of any status they may have as listed structures or scheduled monuments. Appropriate advice from the planning authority and Historic England should be sought in all cases.
- E** All bridge works and new bridge construction should take into account the relevant wildlife legislation with particular reference to the needs of otters, bats, migratory fish, and other wildlife which may be affected. Appropriate advice from Natural England should be sought in all cases.
- F** Safety barriers should not be used on bridges unless there is a proven overriding reason for doing so in the interests of safety at that particular location. The visual impact of galvanised steel safety barriers should be reduced where possible.

## Fords

- 2.18.9.** A number of minor roads pass through shallow streams and rivers. These often mark historic crossing points across the chalk river valleys of the AONB. Fords are a cleared way through the water, often with a raised bridge to one side for pedestrians. Not all are formally surfaced but most are sealed with either concrete or tarmac. During the spring runoff or flash floods, these routes can be impassable.
- 2.18.10.** A simple low-water crossing is constructed with culverts sealed under a road surface. The culverts (often concrete pipes) carry the water in a stream keeping the crossing surface dry for most of the year. The term “low water crossing” implies that the crossing is usually dry, while “ford” implies that the crossing is usually wet. Under high flow conditions, water runs over the roadway and precludes vehicular traffic.
- 2.18.11.** Both features attract highway signs. All are bounded with the warning sign ‘Ford’ and a backing sign advising the driver to ‘Try your brakes’. There may also be a ‘Road liable to flooding’ sign. There may be depth gauges. But rarely is the stream or river named.



Ford - Photograph: C. White



### GOOD PRACTICE ADVICE...

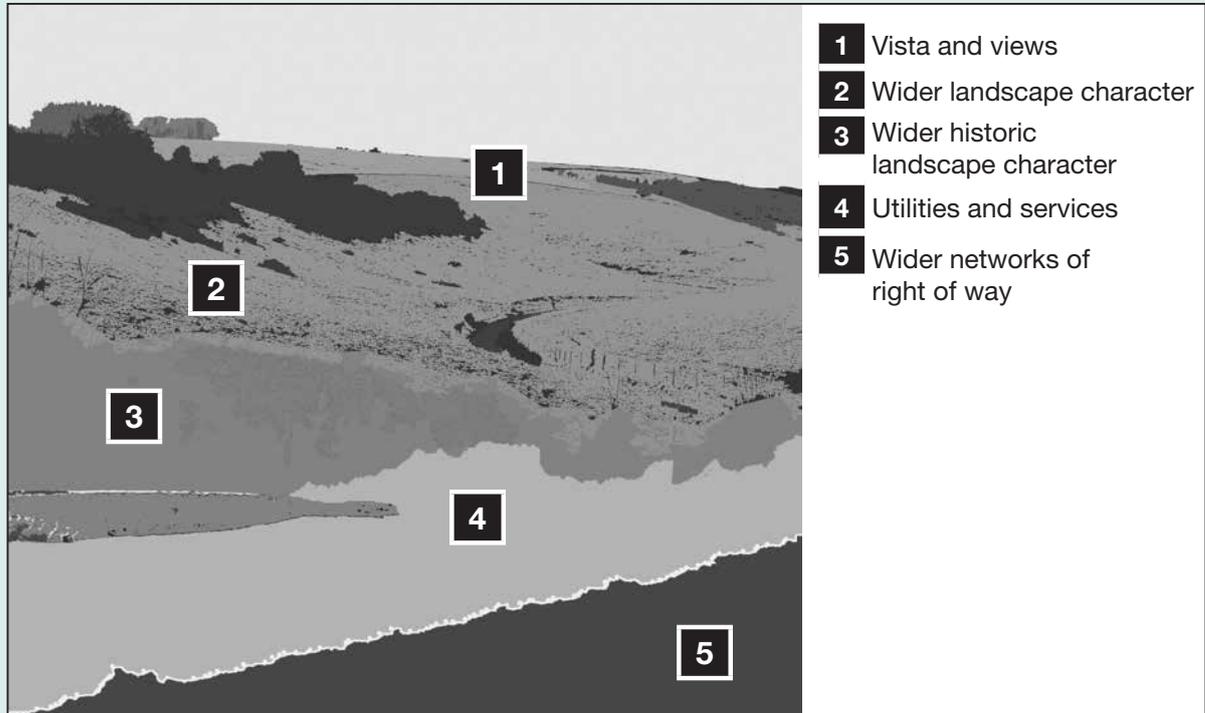
#### 14. Fords

- A** Fords on minor roads should be retained; their upgrading to low water crossings or their replacement with bridges should be resisted unless for over-riding safety issues.
- B** Signing is to be kept to the minimum needed to satisfy safety requirements and in keeping with local character.
- C** The construction and design of both wet and dry crossings should be simple and in keeping with the local landscape character.

## THE RURAL ROADS OF THE AONB IN THEIR WIDER SETTING

### WIDER LANDSCAPE CHARACTER

- 2.19. The Landscape Character Assessment for this AONB (2003) allows us to place the rural roads of the AONB in their wider landscape context. This facilitates appreciation of the diversity of landscape types present throughout the AONB. (See, for example, the B3081 Landscape Character Study).



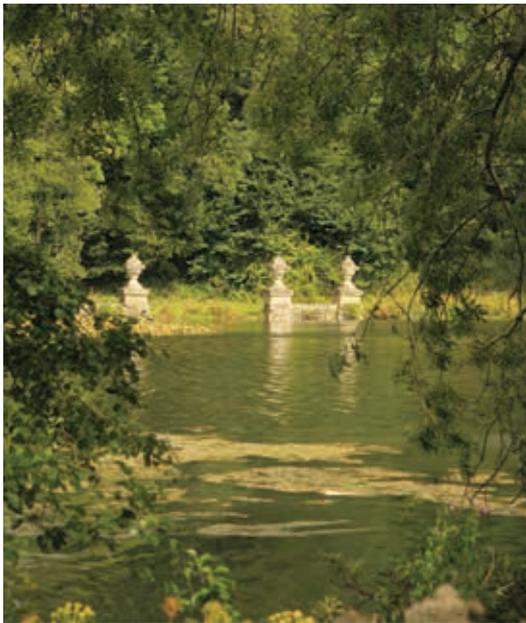
- 2.20. The Landscape Sensitivity Study published in 2007 considers the impact highway design and management might have on the landscape character of the AONB. Of particular note is whether the landscape is enclosed or open (as this will determine the type of boundary treatment appropriate in any given area and the prominence of structures in important views) and whether a highway was traditionally sunken (and so hidden) or exposed.

### WIDER HISTORIC LANDSCAPE CHARACTER

- 2.21. The AONB wide Historic Landscape Characterisation helps us to place routeways of the AONB in their wider context (Rouse 2008). The historic landscape character of the present day landscape can be split into distinct zones along any given route. It also enables insight into time depth in the landscape and identifying where traces of previous historic land uses survive alongside rural roads. (See the B3081 Historic Landscape Appraisal 2010, and The Landscape Practice 2009).
- 2.22. The metalled roads form part of a wider network of rights of way. The junctions between historic paths, bridleways and byways and the road corridor all contribute to the local character of the area.



Photograph: C. White



View captured from the road in Fonthill Park

## VISTAS AND VIEWS

- 2.23.** The Cranborne Chase and West Wiltshire Downs is an Area of Outstanding Natural Beauty because of its nationally important landscape. People get pleasure from experiencing the long view (what the eye can see), finding the captured view (as shown in important paintings and historic posters) and discovering the surprise view round a corner, or the landscape framed in formal designed landscapes of historic parks. Wherever it is safe to do so, it is important to give people the opportunity to see the landscape.
- 2.24.** Given that the majority of people experience the view from the road network, care must be taken to enhance and frame views outwards whilst maintaining an appropriate landscape setting for the highway. In contrast, current highway guidance often concentrates only on the driving experience. This suggests that planting a hedgerow will give additional information to drivers about the line of the road, a feature not achieved by wire fencing or boundary-less roads (Dorset CC 2010). Such an approach deals with drivers' perceptions of the road but takes no account of the AONB setting.
- 2.25.** Open land in the AONB has a very restricted distribution. There are distinct concentrations of surviving open land in the area surrounding Martin

Down, to the north of Mere and to the north of Shaftesbury around Semley Common. The surviving open chalk downland represents traces of what would have once been huge tracts of open downland. In the 18th and 19th century this land formed a major part of the sheep / corn husbandry system of farming. Much of this land was transformed into fields in the 19th and 20th century, leaving only small open areas (Rouse E. 2008), However as many of these fields are only enclosed by visually porous post and wire fences they retain much of their sense of openness.

## SENSE OF PLACE

- 2.26.** The Manual for Streets calls for well-designed streets to be at the heart of sustainable communities and a primary consideration is the relationship between movement and place. Each time a management action is taken for the highway network, a choice is made about the emphasis or importance placed on the provision of schemes which prioritise the movements that take place within an area and the quality, design and aesthetics of the place. Sometimes providing fast, un-impeded traffic movement is more important that creating a sense of place, such as along a motorway. In a rural settlement there is a lesser emphasis placed on movement but a high value given to the sense of place and character. Within the open countryside of the AONB a high value must be placed on the sense of place whilst ease of movement is accommodated.
- 2.27.** The Manual for Streets also requires consideration of users within a place or street. It suggests that the highest priority should be assigned to pedestrians and cyclists, while allowing for vehicle movements, thus creating places that work for all members of the community.
- 2.28.** The rural road network should not be confusing to the user. A logical framework of road types or junction forms, with a consistent style of signing, can help in guiding users through

the area. It can also give some broad spatial information, such as whether you are on a through route or in a quiet residential area, which in turn will affect user behaviour. The focus should be on how the road network can create a positive place that serves communities in a positive way. (*Department for Transport 2007 and Chartered Institution of Highways and Transportation 2010*)

- 2.29. One way of moving forward is for the AONB partnership to champion a movement and place strategy for the AONB that takes into account the findings of the landscape character studies, conservation area appraisals and village design statements<sup>19</sup>.



**GOOD PRACTICE ADVICE...**

**15. Landscape Character, Views and Sense of Place**

- A** Ensure that management decisions along the highway are based upon a full understanding of the priorities to be given to landscape character and traffic movement in the locality.<sup>20</sup>
- B** Involve the AONB team and an appropriately qualified landscape architect in identifying views from highways to be conserved or enhanced, and in avoiding urbanisation and clutter in the highway corridors.
- C** Enable highways staff to understand features and characteristics that contribute to sense of place.
- D** Consider introducing a road signing hierarchy where the different grades of road are distinguished by a consistent signing pattern incorporating how and when locally distinct design styles such as fingerposts can be most effectively used.
- E** Involve the AONB Partnership in agreeing a common road hierarchy across the AONB, to be used to direct maintenance regimes and signing policy.



**Long view from the road above Chalke Valley**

19. See Case Studies: Dorset Rural Roads Protocol; Traffic in village – a toolkit for communities

20. See Case Study: The B3081 Historic Landscape Appraisal

## Utilities and Services

- 2.30. Utility companies and other similar organisations undertake many operations over, on or under the road. They have a legal duty to ‘have regard to’ the purposes of designation when exercising or performing any functions affecting land in the designated area, including the setting of that land <sup>21</sup>. This includes on and adjacent to the road corridor. The incidental changes they make to the roadway can have a significant impact on the local character of the area if they do not replicate the locally distinctive materials and styles. The roadside environment is often the site for structures associated with the utilities. These can include boxes and cabins in addition to poles and wires which are an intrusive presence in a rural setting and especially in an AONB. Efforts should be made to minimise the visual impact of such features.



### GOOD PRACTICE ADVICE...

## 16. Utilities and Services

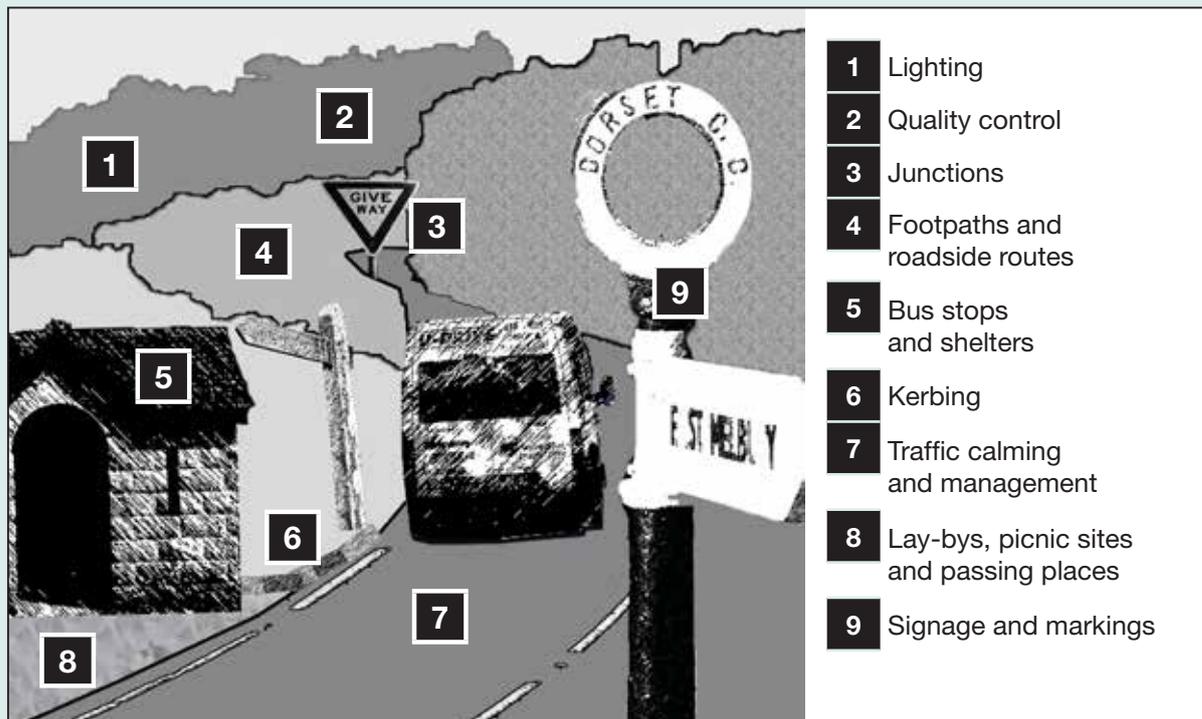
- A** All roadside equipment / facilities, including telecom masts, substations, drainage pumps and the like should be kept to a minimum and sensitively located, unobtrusive and / or screened with native species planting appropriate to the location.
- B** Where structures cannot be avoided their design must be of high quality and use materials and colour appropriate to the local context. Opportunities for multiple-use should be explored with owners of the apparatus, such as using power-line or telephone poles to support highway signs.
- C** Equipment should be installed below ground wherever possible.
- D** Organisations regularly working in the roadside environment should be provided with a copy of these guidelines. In particular, they should be made aware of surface dressing specifications appropriate to the area and the location of special verges (so their operations can avoid such sites).
- E** Reinstatement measures should be agreed in advance with the appropriate authority. Such work might include turf-stripping and subsequent replacement, reseeding only with local provenance herbs and grasses appropriate to the location and the avoidance of seeds such as perennial rye-grass.
- F** All works should adhere to relevant British Standards (e.g. BS3998 Tree Works and BS 5837 for Development near Trees). Utilities have their own good practice code for works near trees and these should also be strictly adhered to (NJUG guidelines for planning, installation and maintenance of utility services in proximity to trees 1995).



Photograph clearly showing highway works by utility services - Photograph: C. White

<sup>21</sup> The duty is defined under Section 85 of the Countryside and Rights of Way Act 2000.

## Modern Highway Infrastructure and the Rural Roads of the AONB



### SIGNAGE AND MARKINGS

- 2.31. Whilst signage is an essential feature of the roadside environment, it can be an intrusive and urbanising element in the landscape. Placing a new sign into the countryside should be a last resort.

*“Levels of signing, lining and street furniture should be minimised, consistent with the need for safety. Roadside clutter should be identified and removed or improved alternative designs implemented as appropriate.”*

Dorset Rural Roads Protocol 2008 (2.09)

### Traffic signs regulation and guidance

- 2.31.1. *The Traffic Signs Manual* (1982 to 2004) gives clear guidance to local authorities about the use and placing of signs in the highway. It states that clear and efficient signing is an essential part of highway and traffic engineering and a road with poor signing or with badly maintained signs is an unsatisfactory road. Signs must give road users their message clearly and at the correct time.
- 2.31.2. The types of signs and carriageway markings available for use are prescribed by regulations. Limiting the number of types of sign available assists in their quick recognition, as does the uniformity of shape, colour and lettering for each type. It also aids the courts in giving the same meaning to standard signs. Uniformity of signs also requires uniformity in use to maintain road safety. For instance, warning signs sited at different distances from their hazards in different districts could confuse a road user accustomed to only one district.
- 2.31.3. The signs for all purpose roads are based on the recommendations of the Report of the Traffic Signs Committee 196322. These signs are now prescribed under the Traffic Signs Regulations and General Directions 2002. Authorities may only use signs (including carriageway markings) of a size, colour and type **prescribed or specially authorised** by the Secretary of State.

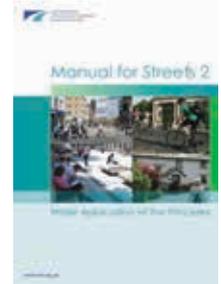


22 This report is widely known as the Worboys Report, taking its name from the Committee Chairman, Sir Walter Worboys.

2.31.4. The manual states that signs are used to control and guide traffic and to promote road safety. They should only be used where they can usefully serve these functions. Warning signs will not, for instance, promote road safety if used widely where there is no unusual degree of danger. On the other hand, their omission where guidance, control or danger warrants the use of a sign, is not in the best interests of road users. Authorities are advised to follow the advice given in the manual closely. Recognising the tendency for signs to accumulate, the DfT have (January 2013) issued an advisory leaflet on Reducing Sign Clutter.

2.31.5. There are two main categories of directional signs that can be erected on the highway: standard directional signs and tourism signs. Standard directional signs have blue, green or white backgrounds depending on the classification of road and are provided for highway safety and traffic management purposes. Tourism signs have a brown background and are provided to direct visitors to tourist destinations.

2.31.6. If an authority wishes to diverge from set regulation it can only do so with the approval of the Department for Transport. Guidance is issued to authorities to follow where appropriate. For example, Manual for Streets provides guidance for the planning, design, provision and approval of new residential streets; and modifications to existing ones. Manual for Streets 2 builds on these design philosophies and demonstrates through guidance and case studies how they can be extended to encompass both urban and rural situations. (Department for Transport 2007; Chartered Institution of Highways and Transportation 2010)



### Manual for Streets 2

*'Many rural highways require a 'non-standard' approach to respond to context and this can be achieved by working as a multidisciplinary team and by looking at and researching other similar places that work well. It is important to include all skill sets required to meet scheme objectives.'*

*Chartered Institution of Highways and Transportation, 2010*



2.31.7. Where guidance is not followed, highway authorities are encouraged to keep an auditable trail to demonstrate why the decision to diverge has been made; this is particularly pertinent should the highway authority be challenged at some stage in the future. Key in making such decisions is the need for safety to be considered. For this reason, all highway schemes are subject to some form of safety audit. The need to secure permission to use non-standard signage should not be a barrier to achieving the highest design standards in the AONB, given its national importance and the duty to conserve and enhance the character. (A general guide to the legislation and guidance on signing and lining is shown in Appendix 2)

### Road signs

2.31.8. Those signs relating to safety and direction are clearly beneficial and they are meant to be noticed but even these can detract from the quality of the environment where their nature and scale is inappropriate to their setting. Backing plate colouring needs



Fixing the threshold name plate and speed limit roundel to the same posts reduces clutter but a combined sign would be neater. The yellow backing board is intrusive - grey would be as effective in this situation and look less urban

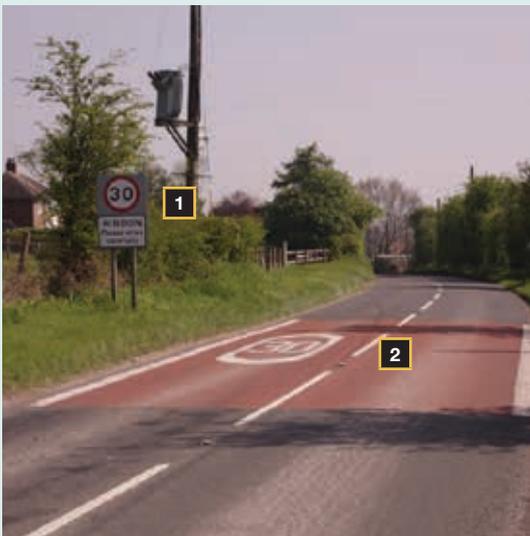
Photograph P. Tiplady

thought, yellow may be essential in a busy urban environment but is rarely needed in the open countryside. Solar-powered warning lights add obtrusive structures into the landscape. Standard road signs, using modern reflective materials, are likely to be just as effective.

- 2.31.9.** The goals of reducing roadside clutter and avoiding an erosion of rural character should be seen alongside those of safety and utility. Regular route signage clutter audits should be undertaken in liaison with local stakeholders. When placing new signs highway authorities should be encouraged to make use of existing street furniture, such as lamp columns, where regulation permits.



**Speed roundel fixed to existing structure reduces clutter** - Photograph P. Tiplady



**1** Combined threshold name plates and speed limits with grey backing reduces clutter - **2** The red box and speed roundel give an urban feel but allow subdued upright signs.

## Road markings

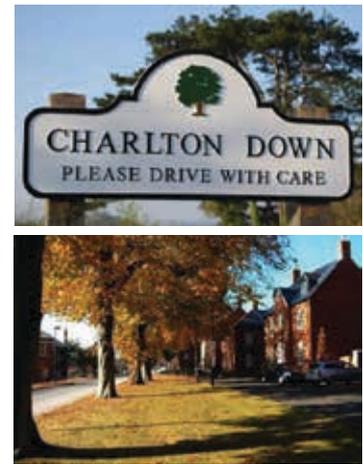
- 2.31.10.** These include markings on the surface of the road for the control, warning, guidance or information of road users. Some markings may be used to supplement upright signs, such as 30 mph speed limit roundels; others are intended to be used alone. Speed limit roundels painted on the carriageway have an urbanising effect upon rural roads but can be justified if the impact of upright signs is significantly reduced.
- 2.31.11.** The design and use of road markings is set out in Chapter 5 of the Traffic Signs Manual, entitled 'Road Markings'. Prepared by the Department for Transport, 'Road Markings' is the official definitive guidance on the correct use of the various road markings prescribed in the Traffic Signs Regulations.

*'On rural roads below 5.5 m in width, over-running of the carriageway edge can occur if centre line markings are provided, causing maintenance problems. Drivers might also expect a road marked with a centre line to be wide enough for opposing lanes of traffic to pass. In these circumstances the centre line should be omitted'.*

Chapter 5 of the Traffic Signs Manual 2003

- 2.31.12.** A reduction in the amount of white lines can create uncertainty for drivers, encouraging them to reduce their speed. An over use of road markings has a detrimental effect upon the area's character and visual amenity.

Wiltshire Council removes edge lines in the open countryside and only adds centre lines where they are needed. There should be no centre lines on roads less than 6m wide, as such markings give a driver a false sense of security. The Council prefers not to have road markings in villages, as their absence reduces speed. Edge markings are occasionally used to give the perception of a narrow road. Very occasionally, red boxes will be used on 'A' roads but never on 'C' roads.



### Local distinctiveness

- 2.31.13.** Local distinctiveness is about places and how people relate to their environment. It is as much about the ordinary as the spectacular. When local distinctiveness is reinforced, a 'sense of place' is established. This gives both comfort and pride to people.
- 2.31.14.** The opportunity can be taken to reinforce local distinctiveness and raise awareness of special areas or places by marking boundaries and entrances. Poorly designed or placed, they detract from the landscape character. In order to minimise clutter, threshold signs are best grouped with other highway signing wherever possible. However, such an approach limits the scope for a distinctive style as regulatory signs are prescribed under the Traffic Signs Regulations and General Directions 2002.
- 2.31.15.** It is more usual to erect free standing threshold signs. Most are simple plate names that merely indicate a boundary. Some are designed to reflect features of the settlement or local area. Despite the risk of adding to sign clutter, it is right to encourage some new ideas, provided care is taken with the design and placing. Thought should be given to the materials used, such as wooden rather than metal supports. Visibility of sign supports can be reduced through colour (dark olive greens, browns and greys depending on local context); using one pole instead of two; and ensuring that no part of the supporting pole protrudes above the top of the sign. The size of the sign must be appropriate to the context and purpose.
- 2.31.16.** Another approach to reinforce a sense of place is to incorporate symbols or phrases within existing signs and structures throughout an area. Small representations of the AONB logo can be set within posts. Strap lines can be added to threshold plates and car-park signs. Locally distinctive materials or colour can be used with the regulatory signs and highway infrastructure. Careful design and attention to detail is required in order to avoid the creation of 'sign clutter'.



**Dartmoor threshold, design constrained by regulatory requirements** - Photograph P. Tiplady



**Combining the signs onto a grey backing plate would enhance the landscape** - Photograph P. Tiplady

## Other signs

- 2.31.17. Brown Signs are provided to direct visitors to tourist destinations, which supports the local economy. A leaflet published by the Highways Agency sets out the rules and regulations associated with the provision of brown traffic signs (*Highways Agency 2005*)<sup>23</sup>. For most tourist destinations, signing is only appropriate within 2 or 3 miles of the attraction.

### From Wiltshire Council Brown and White Tourism Signs guidance notes

An eligible tourism facility is defined for this purpose as:

*“a permanently established attraction or facility of recognised quality and/or importance that attracts or is used by visitors from outside the local area, and which is open to the public without prior booking during its normal opening hours.”*

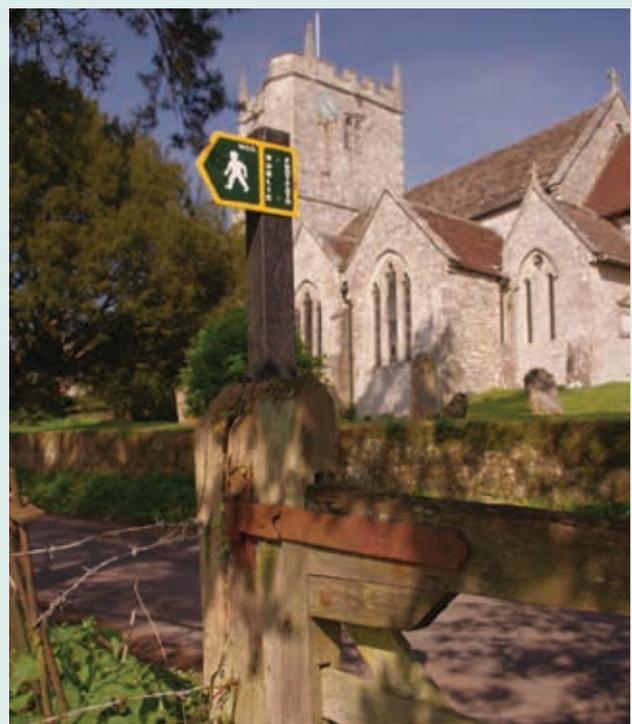
All applicants must meet the following general criteria:

- You must provide sufficient dedicated off road car parking on your site, or very close by
- Your sign must direct visitors to your car park, not to your attraction/facility
- You must be (and remain) an accredited member of any relevant, nationally approved quality assurance scheme
- You must hold all the necessary planning permissions, fire, health and safety and environmental health certificates and show that you have carried out the appropriate risk assessments relating to these
- Your main publicity material and website must provide appropriate information on your location, opening times, facilities etc together with any public transport links
- You must not have or erect in the future any advertisement signs at or near the proposed locations of the Brown and White Tourism Signs. Any existing off-site signing must be removed prior to the installation of Brown and White Tourism Signs.

- 2.31.18. Non-highway signage, principally advertising boards, also proliferates along roads in some locations. This is becoming an increasingly intrusive feature of the countryside but can be regulated through the Town and Country Planning and Highway Acts. There should be robust control of such signage in order to conserve rural character. However, consideration must also be given to the affect on local businesses to promote their location to customers and delivery vehicles.

## Public Rights of Way

- 2.31.19. There is a duty for highway authorities to sign Public Rights of Way (PRoW) where they leave the metalled road. Traditionally, these signs were wooden though this is not the current policy. The practice is to use green metal finger plates on either wooden, metal or composite posts. These signs are numerous and, by their nature, very visible to walkers, riders and cyclists. Their design can add significantly to local distinctiveness. PRoW signs should follow a common template that shows the status of the route, the destination and the distance; in some locations the journey time may be appropriate.



Photograph S.P. Hardy

<sup>23</sup> Highways Agency, the Department for Transport, the Department for Culture, Media and Sport and Visit Britain, *We're just off the Main Road - advice on traffic signs for tourist businesses in England*, 2005

## Bollards and Chevrons

- 2.31.20. These can, when used discretely, enhance safety through improved driver behaviour. They are, however, by their very nature particularly intrusive and often sited in very visible positions, sometimes in elevated positions. Their use and their landscape impacts should, therefore, be very carefully considered. *(ref footnote 26)*

## Protective devices

- 2.31.21. Edge of road and central crash barriers have a significant urbanising effect, very much in contrast to the natural countryside of the AONB. They may lead to drivers being over-confident. The ends of crash barriers are often coloured with yellow and black stripes, which are very visually intrusive, draw attention to the barriers, and detract significantly from the character of the countryside. Where they have been replaced by grey ends [for example on the A303 at Chaddenwick Hill] the barriers sit more comfortably into the landscape. Similar yellow and black striped signs attached to the ends of small bridges over rural streams detract from the character of the bridge, provide an artificial intrusion into the scene, and degrade the rural character of the locality.



### GOOD PRACTICE ADVICE...

## 17. Signs

- A** All signs should be located with a view to minimising the impact on the landscape and the rural character of the area, as well as with a view to safety and utility.
- B** Whenever a sign is scheduled for replacement, the genuine need for its retention is to be considered.
- C** The opportunity for the amalgamation of signs onto a single pole and/or signboard in some locations, to avoid a proliferation of individual structures (where this does not create an overly-large single structure), should be grasped. Opportunities to mount signs on existing structures should be explored with the owners. Where signs are amalgamated, the old signs and their posts should be removed.
- D** Signs are to be 'back to back' wherever possible, minimising the impact of the unsightly 'back view' of signs and reducing the number of posts used. Poles should not be visible above the top edges of signs.
- E** When possible 'sign rationalisation' projects and 'clutter audits' should be undertaken following a risk based approach which can reduce signs and/or supports which prove unnecessary, improve sign location and improve safety. This may have a benefit in terms of reducing the cost of future maintenance<sup>26</sup>.
- F** Robust guidance on brown tourist signs is to be firmly applied and the proliferation of such signs rigorously avoided.
- G** The lighting of signs is to be avoided except where regulations or safety demand they be lit.
- H** There should be a presumption against the use of solar-powered or illuminated signs where they have an urbanising effect on the landscape character.
- I** Signs and their posts are to be as small as practicable. Visually intrusive yellow-backed signs are to be avoided except where there is an established safety issue.
- J** Traditional cast-iron and timber directional signs are to be maintained and retained. Consideration should be given for their reintroduction when current signs need replacing. Their style should reflect the tradition used in each landscape area whilst meeting regulatory requirements. Those mileposts and directional signs in need of repair are to be sensitively conserved<sup>25</sup>.
- K** New directional signs should be constructed in materials and a style that reflects the tradition used in each landscape area whilst meeting regulatory requirements. Combining traditional fingerposts with modern components should be avoided.

<sup>24</sup> See case Study: What's my line?

<sup>25</sup> See Case Study: Refurbishment of traditional fingerposts

<sup>26</sup> See Case Study: Rationalisation of Win Green Hill road signs and lines (B3081)



- L** Where appropriate, opportunities for reinforcing local distinctiveness and raising awareness of special places through grouped/threshold/village signage should be encouraged.
- M** Unauthorised signs should, in general, be removed using powers under S132 of the Highways Act. However it is recognised that some discretion is needed in relation to local fetes and charitable events.
- N** PRoW sign posts and fingers should be wooden, indicate the status of the route (footpath, bridleway etc.) and state the destination (and distance to it).



**GOOD PRACTICE ADVICE...**

**18. Lines**

- A** When reviewing lining following resurfacing/ surface dressing, consideration should be given to whether the lining, including 'Slow' markings, can be omitted<sup>24</sup>.
- B** Central white lines should not be used on narrow rural roads or where they could encourage fast driving. The use of edge of carriageway lines should only be in lieu of centrelines, unless their inclusion is considered necessary on the grounds of highway safety.
- C** Where new parking restrictions are deemed necessary, double yellow lines shall be pale primrose yellow and a maximum of 50 mm thick. Where double yellow lines are to be redrawn, they shall be primrose yellow and a maximum of 50 mm thick. 'At any time' signs associated with double yellow lines are no longer legally required and should be removed.
- D** Discussions relating to the inclusion of speed limit roundels painted on the carriageway must consider the impact on the character and visual amenity of the AONB.



**GOOD PRACTICE ADVICE...**

## 19. Bollards and Chevrons

- A** Crash barriers should be kept to an absolute minimum. Consideration should be given to removing roadside saplings in preference to installing extensive crash barriers between them and the road.
- B** Where crash barriers are vital, alternative forms to the standardised form should be sought that fit more readily with the local landscape.
- C** Barrier ends in the AONB should always be grey, not striped yellow and black.
- D** The use of bollards and chevron signs should be critically assessed and reduced to a minimum.
- E** Unless there is a significant record of collisions, yellow and black striped signs should not be attached to the ends of rural bridges. The effect of removing the central white line on the road over the bridge should be monitored before considering using striped signs.

## FOOTWAYS AND ROADSIDE ROUTES

- 2.32. The edges and verges of rural roads are used as access and recreational routes by walkers and horse riders; all management and maintenance of roads should take account of their needs. Busier roads may also need special provision for cyclists. Sometimes it may be better to re-site a footpath away from the roadside altogether, improving the route for all types of user. Local consultation should be undertaken in the development of new roadside routes to ensure that they will meet local need and be sited appropriately.



**GOOD PRACTICE ADVICE...**

## 20. Footways and Roadside Routes

- A** The construction of new footways and cycle ways, and improvements to existing routes, should preserve and enhance the character and natural beauty of the landscapes through which they pass.
- B** Natural, local materials should be used in rural landscapes. The number of signs should be kept to an absolute minimum. Edging materials should be consistent with guidance provided elsewhere in this document.
- C** On major roads in particular, grass verges should be retained as a refuge for horse riders and walkers.
- D** Consideration should be given to the allocation of road space to cyclists and pedestrians, provided this can be accommodated within the existing highway to adequate design standards. Any associated road markings and signage should be kept to the minimum required for safety. Alternatively it may be more desirable in some locations to provide traffic free roadside paths. Such traffic free sections of path could be shared between walkers and cyclists, providing they are used responsibly.
- E** Consideration should be given to establishing less formal footpaths, rather than the standard hard surface material; for example being set back from the road. Such paths can be more attractive to users and better complement their surroundings. The challenge is to provide surfaces which are sensitive to their surroundings whilst also being hardwearing and requiring limited maintenance.

## KERBING

- 2.33. Improvements to meet modern highway design standards often have a detrimental impact upon the character and visual amenity of rural roads. The introduction of concrete kerbs along minor roads should be avoided as they have an urbanising effect upon the landscape character. Where they are considered necessary to prevent erosion or verge over running, alternative solutions should be considered such as local stone kerbs or setts or angled 'countryside' kerbs. However, environmental costs must be considered, especially if traditional materials are no longer available locally.
- 2.34. Footways edged with local materials are found within some settlements. When improvements are undertaken then local materials and vernacular styles should be replicated wherever possible.



**1** Concrete kerbs have an urbanising effect - reduced here as angled kerbs are used - Photograph C. White



**1** Traditional material is stone  
**2** Concrete kerbs detract from local character - Photograph C. White



### GOOD PRACTICE ADVICE...

#### 21. Kerbing

- A** Raised kerbs should be avoided on rural roads as they can bring an unnecessary urban character to the highway. Where kerbs are considered necessary on highway safety grounds, local materials and vernacular styles should be replicated wherever possible.
- B** Where works to realign roads and footpaths are undertaken, the existing traditional materials should be retained and re-used in the same location wherever possible.
- C** Edge details, such as cobbled entrances to traditional farmsteads, should be protected during resurfacing works and should never be overlain so that they are no longer visible.
- D** Where works necessitate the removal of traditional materials from the roadside edge they should where practical be retained and stored in the Highways depot for future use elsewhere in the locality. Any un-used stone should be recorded in a Site Waste Management Plan before storing for re-use.

## JUNCTIONS

2.35. This section considers the design of junctions and visibility splays.

### Junction Design

2.35.1. There is a large network of minor roads in the area. Most junctions are T-junctions or crossroads with restricted site lines. On occasions, a road has a split junction, leaving a small grass area between the carriageways.

2.35.2. Junction improvements are sometimes necessary on safety grounds or as a result of development in an area. Whilst legislation sometimes requires specific standards to be met, some regulations do allow flexibility. Junctions with tight radii can help maintain lower traffic speeds and ensure safety for all road users.

The design of any new scheme should use the existing topography, vegetation, buildings and other structures, so that they appear an integral part of the landscape and historic road pattern. Solutions should reinforce local identity by careful choice of detailing, materials and street furniture.

2.35.3. Roundabouts are normally associated with urban areas or major roads, where the volume of traffic means they are considered to be essential. Regulation requires lighting, mandatory signs and lines to a satisfactory standard at roundabouts and this can be inappropriate in rural areas. In view of this, other junction treatments are preferable.



1 A typical hidden junction - Photograph C. White



#### GOOD PRACTICE ADVICE...

### 22. Junctions

- A** Junction improvements should only be considered where there is a proven safety need, and the introduction of a roundabout should only be considered as a last resort<sup>27</sup>.
- B** There should be a presumption in favour of retaining trees, hedges and verges including any central grass areas.
- C** If an historic hedge needs to be removed for the realignment of a road, the practicality of replacement should be considered. Archaeological recording and supervision may be required where the road coincides with an historic boundary such as a parish boundary.
- D** Junction lighting should not be installed on roads outside settlements unless risk assessments identify it as essential. Where considered necessary, the highway authority should consult with the AONB team and landscape managers during the design stage. The preferred option is to install high-reflective non-illuminated signs.
- E** Signing should be kept to a minimum and should be located with a view to minimising the impact on the landscape and the rural character of the area compatible with safety and utility.
- F** Detailing and choice of materials should respect the local environment and standard solutions or components will not always be appropriate. Kerbing of central grass areas should be avoided. Chevron blocks around the edge of junction radii and roundabouts are not appropriate and should not be used.

<sup>27</sup> See Case Study: Tisbury – design the junction for the place

## Visibility Splays

- 2.35.4. Many accidents occur at junctions. Visibility splays are intended to reduce the risk of such accidents occurring by making it easier to see other road users. They arise from road schemes and applications for development. However, the lack of visibility splays reflects the rural nature and local distinctiveness of the AONB. Deep visibility splays introduce areas of suburban looking mown grass into rural settings and can result in the removal of trees and banks.



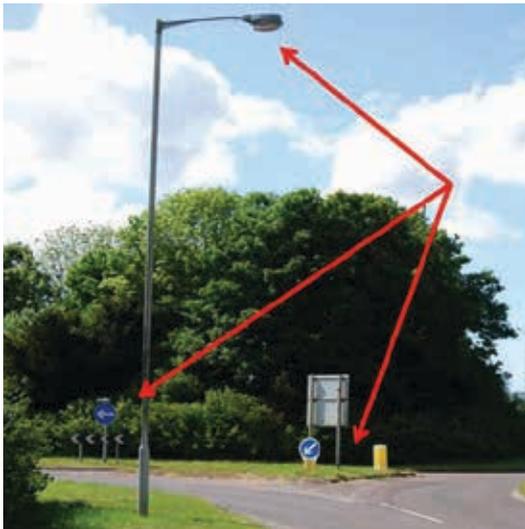
### GOOD PRACTICE ADVICE...

#### 23. Visibility Splays

- A The use of visibility splays should be given careful consideration and design. If speeding traffic is a problem in a given location then non-intrusive steps should be taken to reduce speed.
- B Where visibility splays are proven to be necessary, steps should be taken to reduce their intrusiveness / suburbanising effect.
- C Where the creation of new boundaries (such as banks) is necessary, these should be in keeping with their surroundings.

## LIGHTING

- 2.36. The quality of the dark night skies of the AONB landscape is one of its most important characteristics.
- 2.37. There is no statutory requirement on local authorities to provide public lighting but street lighting within rural settlements is considered by some to be an important safety feature. Lighting schemes can have a detrimental effect upon the character and visual amenity of the rural landscape, both in day time (by the introduction of intrusive structures) and night time (by 'light pollution'). Careful consideration must be given to the need for lighting in rural settings and the placing, arrangement, frequency, style, intensity and control of the light source. The use of lights results in a high revenue and carbon cost. Highly reflective signs are less visually intrusive than illuminated signs.



**Overhead lighting and illuminated bollards and chevrons** - Photograph P. Tiplady

- 2.38. The AONB includes some of the few places in England where the night sky can still be fully appreciated without the intrusive effects of light pollution, though light spillage / glow from urban areas does affect some of the AONB. The need for lighting needs careful assessment on a case-by-case basis but general guidelines can be applied; the Department of the Environment and the former Countryside Commission produced such guidance in 1997 (Lighting in the Countryside - Towards Good Practice). The consequence of

designing street lighting to produce zero upward light pollution will usually result in additional units being installed with subsequent increases in the energy consumed and future maintenance costs if the applicable lighting standards are to still be met. A careful balance is therefore being struck between using minimal resources, both locally and globally, and achieving minimal light pollution. (*Dorset County Council 2011*)

2.39. **Street lighting and illuminated signs policy in Dorset**

Environmental Zone 1- World Heritage site, Areas of Outstanding Natural Beauty, Sites of Special Scientific Importance and other Dark Areas - these are areas that currently have very low population densities and no, or intermittent, lighting.

- Villages and settlements within this zone will generally only be provided with lighting when it is requested and funded by the Town or Parish Council, with support from the residents and interest groups. Such lighting will be limited to strategic locations such as telephone boxes, bus stops etc.
- Apart from designated traffic routes all other lights may be operational for just part of the night, when levels of highway use are at their highest. Statutory and safety requirements may require that some lights remain in operation all night. Lighting will generally only be installed outside of villages and settlements where there is a night-time safety issue that cannot be resolved by other means.
- Careful design will ensure that, where possible, rural locations are not urbanised by the provision of a lighting scheme. Luminaries should be well controlled and restrict the upward light ratio to 0%.

*Dorset County Council February 2011*

- 2.40. Bat behaviour in response to light levels is often interpreted as predator avoidance when there is evidence to show that a bat's eye is designed

to exploit low light levels and is disorientated by bright light<sup>28</sup>. Three of the UK's 17 bat species will not fly in directly illuminated areas. This means that directly illuminating a bat roost or even a known feeding route may be an offence under the Wildlife and Countryside Act (1981), as it is illegal to disturb bats<sup>29</sup>.



Photograph S.P Hardy

- 2.41.** The impact on bats can be minimised by the use of low pressure sodium lamps or high pressure sodium instead of mercury or metal halide lamps, where glass glazing is preferred due to its UV filtration characteristics. Lighting should be directed to where it is needed and light spillage avoided. The height of lighting columns should be as short as is possible, as light at a low level reduces the ecological impact. The times during which the lighting is on should be limited to provide some dark periods. Roads in areas important for foraging bats should contain stretches left unlit to avoid isolation of bat colonies. These unlit stretches should be 10 metres in length either side of the commuting route<sup>30</sup>.
- 2.42.** Traditional light fittings add much to the local character of an area and reinforce the sense of local distinctiveness. They are a valuable element and as such should be retained, refurbished or replaced in the same style so long as they do not spill light upwards and sideways, contributing to light pollution. Replacements should respect the local design and use authentic materials. Modern, poor imitations of these old styles should be avoided.



**GOOD PRACTICE ADVICE...**

**24. Lighting**

- A** **Lighting should not be installed on roads outside settlement boundaries unless there is a proven and overriding safety reason which cannot be addressed by other means. Where considered necessary, the highway authority should consult with AONB team and landscape managers during the design stage. The preferred option is to install high-reflective non-illuminated signs.**
- B** **The minimum acceptable lighting intensity should be specified for any lighting in the AONB (BS5489).**
- C** **Where lighting is necessary, yellow low pressure sodium lighting should be avoided. The highway authority should seek energy efficient light sources<sup>31</sup>.**
- D** **Where lighting is installed, standards should have individual sensors; consideration should be given to using dimming lights that reduce intensity outside of busy periods; and opportunities should be sought to switch off lights between 12.30 am and 5.30 am.**
- E** **The number of lighting columns should be the minimum necessary for the intended purpose. Special attention should be paid to the design and colour of columns. In settlements, their design should complement the character of the streetscape. Wherever possible, lamps should be attached to buildings to reduce street-level clutter but care should be taken, particularly where listed building and conservation areas are involved. Listed buildings consent may be required.**
- F** **Lighting should comply with the AONB Position Statement on Light Pollution, avoiding upward and sideways emission of light, and be directed only onto the desired area.**

<sup>28</sup> Alison Fure, Bats and lighting in The London Naturalist, No. 85, 2006

<sup>29</sup> M Emery, Effects of street lighting on bats, URBIS Lighting Ltd 2008

<sup>30</sup> Emma Louise Stone, Gareth Jones and Stephen Harris, Street lighting disturbs commuting bats in Current Biology 19, 1123-1127, July 14, 2009

<sup>31</sup> E.g. "Cosmopolis" (CPO) energy efficient white light is 30% more efficient than traditional ceramic discharge outdoor (CDO) white lights.

## TRAFFIC CALMING AND MANAGEMENT

- 2.43. In general, traffic travels faster on rural roads than it does on urban roads. Speed of travel is the greatest factor influencing the severity of injury in a traffic accident so the speed of vehicles on our rural roads needs addressing. It is possible to take steps which re-classify particular routes as being for access only, as 'quiet lanes' or to introduce weight restrictions, where this does not hamper legitimate economic activity related to the area. Though it is possible to lower speed limits, without taking more effective enforcement action little change is likely to occur without the imposition of some of the potentially intrusive measures that this guidance is intended to avoid. A better approach is to promote **responsible driving**. There is a clear benefit in designing roads which clearly indicate by their appearance the speeds which are appropriate.
- 2.44. Increasing amounts of traffic on our roads causes an increased danger to drivers, pedestrians and other users of the roads and it can lead to mitigation measures which can have a damaging effect on rural character. Recent experiments using 'shared space' in mainland Europe and more recently the UK have found that removing the traditional separation between traffic and people can make roads safer and less congested. Removing standard kerbs, barriers, highway signs and road markings forces motorists to use eye contact with other road users and pedestrians, for which they need to be travelling at less than around 30 km/h. The result is slower, more careful traffic, increased safety for cyclists and pedestrians and a more attractive environment overall<sup>32</sup>.
- 
- 2.45. There should be a presumption against the imposition of urban solutions in protected areas such as AONBs, unless there is an overriding safety issue that cannot be addressed by any other means. Standardised, 'anywhere', concrete or illuminated plastic bollards, metal fences and multiple signs erode local character, can be incongruous within any rural area, and should be avoided where possible. Local distinctiveness should be protected. The use of alternative materials, such as low timber posts instead of metal barriers or plastic cones or bollards, can help to minimize the impact of a scheme in sensitive areas and help to assimilate the works within the landscape. However, scheme designs will be constrained by the need to allow for passive safety (see *Quality Control section*).
- 2.46. Where walkers and cyclists are thought to be particularly vulnerable to vehicle traffic, at-grade crossing points may be needed but care must be given to minimise the environmental impact of the associated lighting, signing and barriers. Zebra or Puffin crossings may occasionally be necessary for pedestrians in settlements. Nevertheless care should be taken to avoid sensitive locations and to achieve a sympathetic scheme. In all cases, the crossings should be installed in accordance with the current regulations<sup>33</sup>.
- 2.47. Refuge islands are a relatively inexpensive method of improving crossing facilities for pedestrians but poor design can both degrade the landscape character of an area and put people at risk. A minimum standing area of 1.2 metres width is needed but it must be sufficient for the location. Near a school, for example, large numbers of children and parents with pushchairs may need to be accommodated. The restricted width of many country lanes will mean that there are few locations where these can be provided outside of settlement areas (*Department for Transport 1995*).

Lines and cats-eyes removed and distinctive surface laid -  
Photograph Dorset AONB

32 B Hamilton-Baillie and P I Jones 2005, Proceedings of Institute of Civil Engineers, Civil Engineering 158 May 2005 Pages 39-47 Paper 14014 - Improving traffic behaviour and safety through urban design.

33 Statutory Instrument 1997 No. 2400 The Zebra, Pelican and Puffin Pedestrian Crossings Regulations and General Directions 1997



**One lane removed, needs road signs, markings and bollards**  
Photograph P. Tiplady



**Road off-set, needs no signs but four reflector posts**  
Photograph P. Tiplady



**Refuge island**  
Photograph P. Tiplady



**GOOD PRACTICE ADVICE...**

## 25. Traffic Calming and Management Overview

- A** The approach should be to match the traffic to the roads, not the roads to the traffic, by promoting responsible driving.



**GOOD PRACTICE ADVICE...**

## 26. Traffic Calming

- A** The highway authority should be bold when seeking solutions to excessive speed through settlements. Schemes that increase uncertainty, natural calming and shared space should all be considered before inappropriate, urban-engineered solutions are implemented. The removal of signage clutter and lines can lead to a reduction in vehicle speed and the retention of rural character<sup>34</sup>.
- B** All schemes should use designs and materials which reflect local character, retain local sense of place, and do not urbanise the setting.
- C** The use of brightly coloured surface treatments (red, green etc) is to be avoided.
- D** The AONB, local community and interested organisations should be consulted on all potential traffic calming schemes.
- E** Sensitively designed and executed village threshold features can modify driver behaviour and enhance local distinctiveness; their adoption should be supported where they are in keeping with the character of the surrounding area<sup>35</sup>. (Note: Design will be constrained by the need to allow for passive safety. Research has shown that thresholds by themselves will not result in any significant reduction of speed within the community<sup>36</sup>).
- F** Speed limits should be introduced only as a carefully considered option.

<sup>34</sup> See case study - Dinton Traffic Calming

<sup>35</sup> See case study - Ansty Traffic Calming



**GOOD PRACTICE ADVICE...**

**27. Traffic Management**

- A** Consideration should be given to the removal of road edge and centre markings from some lanes. This can send a message to motorists about the way in which the road might be used - more slowly and with greater care. It also helps to retain the rural character of the area through which the road passes, often helping the road itself to form part of that character<sup>37</sup>. This may be more appropriate to the minor roads within the AONB..
- B** All schemes should use designs and materials which reflect local character, retain local sense of place, and do not urbanise the setting.

**Lay-bys, Picnic Sites and Passing Places**

- 2.48. Lay-bys and picnic sites support recreational driving. They need to be well-maintained without becoming over-formal, balancing the needs of driver safety with the visitor experience. Urban features should not be introduced into sensitive rural locations. The larger sites are nodal points for visitors where some open space and information provision is likely to be expected. In such cases, information should be relevant to the locality, and possibly the onward journey, rather than generic. The opportunity should be taken to reflect the local area and culture with the careful selection of images and materials.
- 2.49. Passing places are a common feature of the area on the minor roads. They should be as informal as safety permits, but should not be allowed to become informal lay-bys.



**GOOD PRACTICE ADVICE...**

**28. Lay-bys, Picnic Sites and Passing Places**

- A** Planting in lay-bys and picnic sites should use species native to the area and stock of local provenance. The design / maintenance of these features should reflect the surrounding landscape.
- B** Consideration should be given to using lay-bys and roadside picnic areas as places to provide information on, and interpretation of, the local AONB. Care should be taken to follow good practice in interpretation provision.
- C** Litter collection in lay-bys, passing places and picnic sites should be regular and thorough. Users of such sites should be encouraged to take their litter home with them. Bins, where provided, should be of a neutral colour and preferably of wood or stone.
- D** Existing passing-places should not be formalised, including signage, kerbing or surfacing, unless there is an overriding safety or essential maintenance reason for doing so which cannot be addressed in other (non-intrusive) ways.



Fovant Badges lay-by - Photograph P. Tiplady

36 Devon county Council Traffic Advice Note: Traffic calming gateways 27/05

37 See case study - What's my line?



Passing place informal



Passing place formal - Photograph P. Tiplady

## Bus stops and Shelters

- 2.50. Bus stops can be prominent features of the roadside environment. Good design can enhance rural character but obtrusive designs, using inappropriate materials, can have the opposite effect. Raised concrete kerbs (see section on kerbing) and metal railings will detract from the local landscape character. Concrete Kassel kerb stones<sup>38</sup> are particularly urban in appearance and require the alteration of footpath levels. There is a need to ensure that issues of safety, utility and economy are seen alongside the conservation of rural character.



### GOOD PRACTICE ADVICE...

#### 29. Bus Stops and Shelters

<b>A</b>	<b>The local highway authority should consider the style and design of new and replacement bus shelters within the different AONB landscape character areas.</b>
<b>B</b>	<b>New or replacement bus shelters should be constructed in a simple and straightforward style, with local materials, and suitable to the character of the local area. Bus stop columns should be suited to the local landscape, where matt grey or green may be appropriate.</b>
<b>C</b>	<b>The local highway authority should endeavour to provide wheelchair accessible stops to ensure equality of access to facilities and services but a suitable 'rural' alternative to the 'Kassel kerb' should be developed.</b>
<b>D</b>	<b>Bus stops have the potential to operate as local community information points - effort should be made to provide timetable information but also information about local events and activities, facilities and services (available to both local people and visitors).</b>



Bus stop utilitarian - Photograph P. Tiplady



Bus stop locally distinct - Photograph P. Tiplady

<sup>38</sup> A **Kassel kerb** is a concave-section kerb stone which is intended for use at bus stops served by modern low floor buses. The Kassel kerb guides the tyre of the stopping bus in such a way as to improve the alignment of the bus's doors with the kerb and slightly raised boarding platform. It does this because as the tyre rides up the concave surface, gravity pulls it back down and steers the bus into alignment. The Kassel kerb takes its name from the German city of Kassel, where it was first introduced.

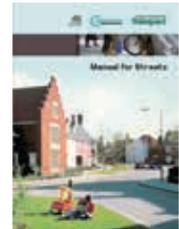
## Quality Control

- 2.51. The production of policies and guidance for highway management and maintenance actions within protected landscapes are only worthwhile if they are adhered to and consistently used. It is essential that guidance is disseminated effectively and that its use is monitored. This needs to be a seamless part of decision making at all levels, so as to ensure an efficient service. Guidance should be easily accessible at the time and place that decisions are made; and procedures must be developed to ensure that relevant people not only know of the guidance but are able to apply it.

### Manual for Streets 2

Advocates the principle of 'quality audit processes that demonstrate how designs will meet objectives for the locality'.

*Chartered Institution of Highways and Transportation 2010*



- 2.52. Somerset County Council has introduced an 'Environmental Audit Procedure' capable of assessing all types of highway maintenance work. This procedure includes the impact on waste, noise and air quality as well as the historic and natural environments and takes account of the Biodiversity Action Plan. As schemes are planned the programme is tested against a range of policies and criteria. Routine works, especially if carried out by contractors, may be best served by a less formal process based upon a check list. *(An example of an environmental audit checklist used in Devon is shown in Appendix 3).*
- 2.53. To develop such procedures there is a need for all advice and data to be readily available, which would mean digitally. Protocols for the collection, labelling and storage of such data would need to be consistently applied across the area. This database would have to be kept up-to-date. There are effective policies in place, supported by advice notes, but these are rarely digitised or indexed. If the recommendations of this guidance are to be carried through, there will be a need to develop further technical notes for use in the field.
- 2.54. There is also a need to ensure that there is an accessible, up-to-date digitised inventory of the highway estate. This should plot all structures and features associated with the highway and identify the body responsible for its management and key consultees. Sub-sets of this work should include sign audits (intended to report on the condition, appearance and redundancy of material) and tranquillity audits (intended to monitor the control of noise and light pollution associated with the highway network).



### GOOD PRACTICE ADVICE...

### 30. Quality Control

- A** One aim of all actions should be to enhance the character of the AONB. In order to minimise the impact on the character of this area, an assessment of all plans, policies and programmes (and their reasonable alternatives) is required before resources are committed.
- B** An Environmental Audit process, linked to a GIS plot and accessible over an intranet, should be developed for the planning and monitoring of all significant highway works. Certificates of compliance with adopted guidance should be issued and retained on file. The categories of 'significant work' should be agreed between the highway, planning and AONB teams.
- C** An easily accessible library of policy, advice notes and guidance should be created and maintained on an intranet, linked to a GIS plot where appropriate.
- D** There should be a regular audit of highway assets and responsibilities in order to maintain an accurate data base and assess the accumulated effect of individual actions. The findings should be recorded in the library database.
- E** Consideration should be given to an annual presentation of Environmental Audit findings in order to identify and share best practice.

## 3. Case Studies

### EXAMPLES OF GOOD PRACTICE

Material is presented to illustrate good practice. Each case study has a brief description of the works, a statement of what was implemented and the good practice elements. The key features of success and the lessons learnt are then set out.

### DORSET RURAL ROADS PROTOCOL AND EXPLANATORY LEAFLET - DORSET-WIDE



#### Description of works

The development of a policy and management framework that sets out a new approach to managing the roads in Dorset's countryside. All decisions affecting the highway environment in Dorset will ensure the conservation and enhancement of the outstanding quality of its landscape and settlements, whilst delivering a safe and convenient network for all modes of movement.

#### Statement of what was implemented

Dorset County Council adopted the policy in April 2008. A decision-making process was adopted (at an appropriate level of detail) in all interventions in the rural highway environment as follows:

- Identify the Issues through engagement with appropriate stakeholders
- Define the context and key considerations (using a checklist)
- Develop Options
- Assess Impacts
- Consult Stakeholders on options and impacts
- Select an Option based on consensus
- Implement selected Option
- Monitor and Review Feedback.

#### Good practice elements

Sensitive management of the road environment makes a major contribution to Dorset's environment, heritage and quality of life. The adopted policy gives solid backing for engineers and communities.

It agreed a movement and place strategy for the AONBs that takes into account the findings of the landscape character studies, conservation area appraisals and village design statements. See good practice advice in **Section 2: Sense of Place**

#### Key features of success

So far - it has 'released' some engineers from the constraints of traditional hard engineering.

#### Lessons learnt

Policy which includes new and radical ideas requires training and education to implement. This takes time. It has been found that there is a degree of reluctance from highway engineers to step out of their comfort zone and embrace new ideas.

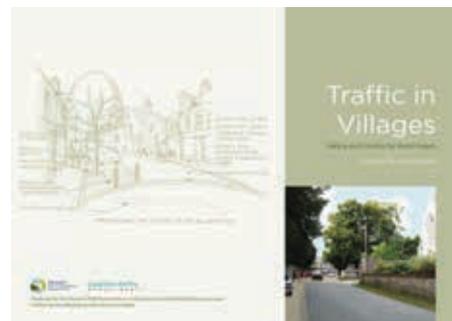
#### Further information

[www.dorsetaonb.org.uk/our-work/rural-roads/dorset-rural-roads-protocol/476-protocol.html](http://www.dorsetaonb.org.uk/our-work/rural-roads/dorset-rural-roads-protocol/476-protocol.html)

# TRAFFIC IN VILLAGES - A TOOLKIT FOR COMMUNITIES - DORSET-WIDE

## Description of works

The Dorset AONB Partnership has developed a toolkit that provides advice and information on a range of measures and initiatives available to parish councils and community groups in line with Dorset Rural Roads Protocol. Its principles come from understanding and exploiting the quality and character of the built and natural environment to increase driver awareness and to influence driver behaviour. It has been written as a toolkit to help Parish Councils and local groups understand the core principles for reducing speed, improving safety and retaining local distinctiveness. The intention is to develop new working relationships between communities and highway authorities by equipping communities with the tools to look closely at their issues and begin to consider new solutions. It is illustrated with case studies and practical advice and includes a checklist to help local surveys. The Toolkit extends the key principles of Manual for Streets and Manual for Streets 2 to support rural communities coping with the impact of traffic in villages and small towns.



A Toolkit for Communities was launched at the 2011 conference of the Chartered Institution for Highways & Transportation and has been endorsed by:

- Chartered Institution of Highways & Transportation;
- Campaign to Protect Rural England;
- Royal Town Planning Institute; and the
- Dorset Design and Heritage Forum

## Statement of what was implemented

A downloadable web-based document which includes case studies and “work sheets” to take out on village walkabouts.

## Good practice elements

A ‘hands-on’, practical toolkit to equip communities with the information, knowledge, language and confidence to discuss potential appropriate solutions with their highway engineers and case studies to illustrate good practice.

See good practice advice in **Section 2: Sense of Place**

## Key features of success

At the time of publication it is too early to say.

## Lessons learnt

Simplicity is the key to understanding new principles.

## Further information

[www.dorsetaonb.org/our-work/rural-roads/traffic-in-villages-toolkit.html](http://www.dorsetaonb.org/our-work/rural-roads/traffic-in-villages-toolkit.html)

## The B3081 Historic Landscape Appraisal

### Description of works

Historic Landscape Characterisation is a powerful tool that provides a framework for broadening our understanding of the whole landscape and contributes to decisions affecting tomorrow's landscape. The countryside we see today is an expression of the interaction between people and the landscape over the millennia. Every part of the landscape has a history and this is a major component that contributes to the special landscapes of the Cranborne Chase AONB. Rather than focus on a particular archaeological site, historic place or settlement, we can choose instead to map, study and examine the whole landscape.

The AONB partnership commissioned a desk based study to capture the archaeological and historic characteristics of the B3081, a rural road on the Dorset Wiltshire border stretching from Cann Common at Boynes Lane/Shafesbury Lane (ST883210) to the roundabout with the A354 at Handley Hill (SU012166). This project adapted the existing approach adopted for considering the effect of large scale road schemes on historic landscape character<sup>39</sup> to a consideration of the contribution of the historic landscape to the character of a rural road within the AONB. The study was especially interested in demonstrating the information which can be derived from Historic Landscape Characterisations<sup>40</sup> and Historic Environment Action Plans (HEAP)<sup>41</sup> of relevance to the characterisation and enhancement of rural roads.

### Statement of what was implemented

The report included a description of the:

- Historic character of the road and its development from an historic turnpike
- Wider historic landscape context
- Wider present day historic landscape context
- Historic landscape time depth surrounding the road
- Historic character of the surrounding network
- Built environment context
- Archaeological context

### Good practice elements

Often overlooked aspects of rural roads are given greater emphasis.

Ensure that management decisions along the highway are based upon a full understanding of the priorities to be given to movement and landscape character in the locality.

See good practice advice in **Section 2: Sense of Place**

### Key features of success

The study has been promoted in a new planning guide on historic landscape character and the AONB

### Lessons learnt

Useful mechanism to allow the identification of locally distinctive characteristics. Care needs to be taken to explain how this understanding can be used to inform road management and design.

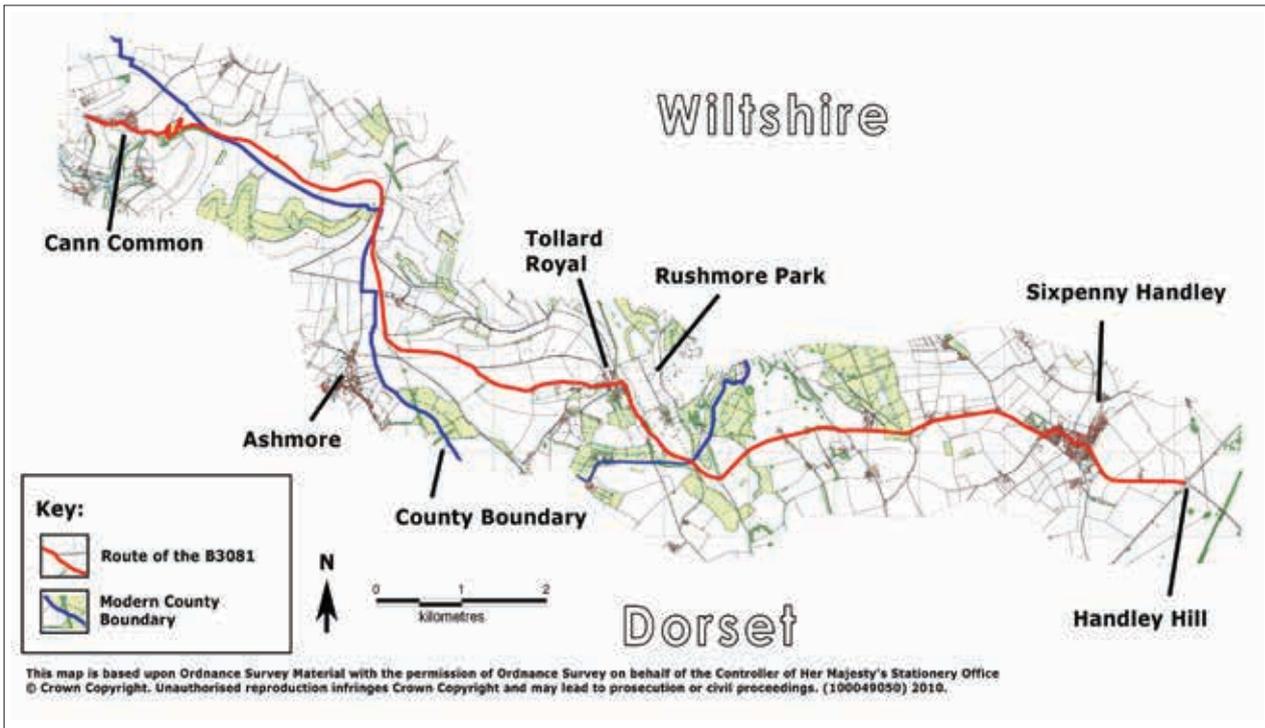
### Further information

[www.ccwwdaonb.org.uk/uploads/docs/Publications/B3081HistoricLandscapeStudy.pdf](http://www.ccwwdaonb.org.uk/uploads/docs/Publications/B3081HistoricLandscapeStudy.pdf)

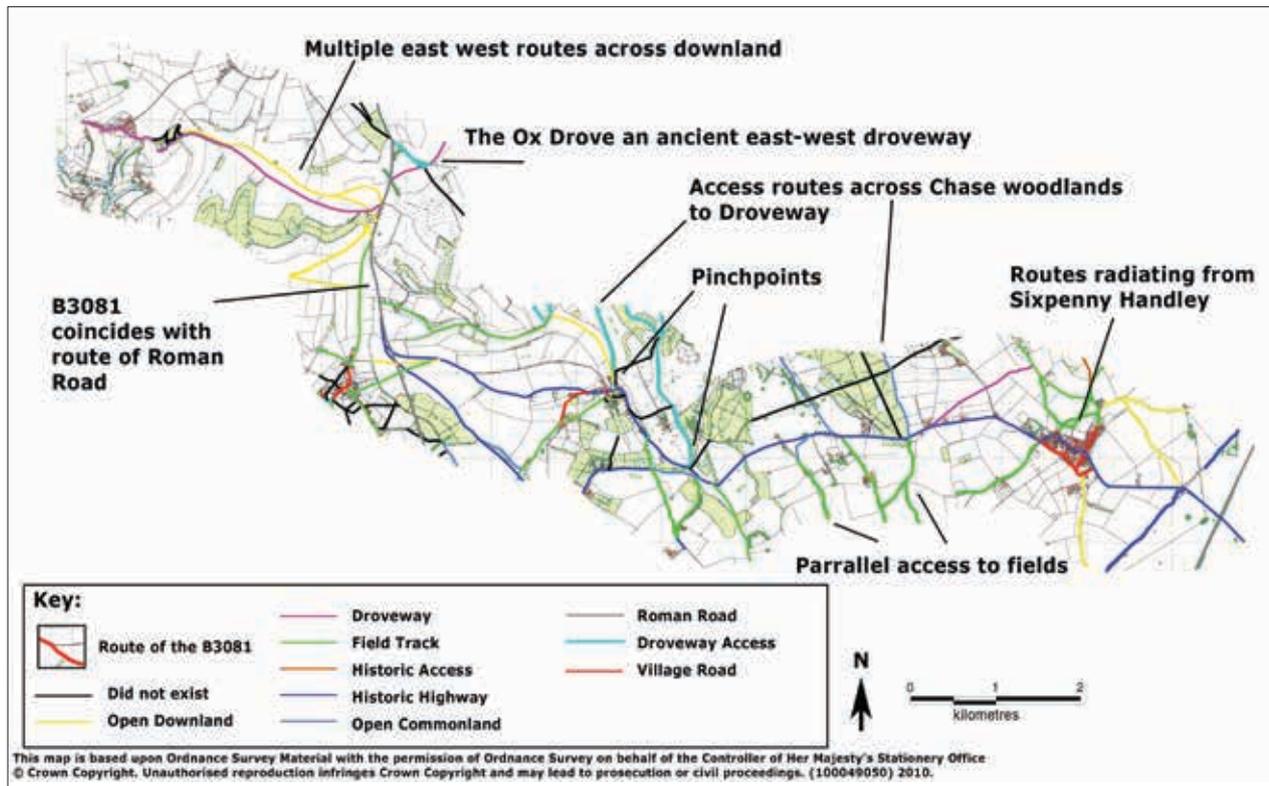
<sup>39</sup> See Highways Agency 2007

<sup>40</sup> See Rouse 2008

<sup>41</sup> See Rouse 2010



Route of the B3081



Historic origin of Routeways around B3081 (Source: AONB HEAP)

## Traffic Calming in Ansty, Wiltshire

### Description of works

The road through Ansty used to connect a pharmaceutical works to the A30. There was a need to calm the traffic but also maintain the character of the village and its historic buildings. Wiltshire Highway Authority decided to use highway enhancement measures to reduce the speed of traffic, rather than regulation and signing.

### Statement of what was implemented

Land was aquired from a neighbour and the road re-aligned with an off-set and hedge at the southern threshold. Vehicles and water had eroded the stream bank. The bank was restored, complete with a new sympathetic road edge. The introduction of road signs and white lines was avoided.

### Good practice elements

The design took account of the landscape character of the area and the pressures to add signs and regulations were resisted. The Design elements are subtle; the realignment has a natural feel.

Sensitively designed and executed village threshold features can modify driver behaviour and enhance local distinctiveness; their adoption will be supported where they are in keeping with the character of the surrounding area.

See good practice advice in **Section 2: Traffic Calming**

### Key features of success

Simplicity of the approach.

### Lessons learnt

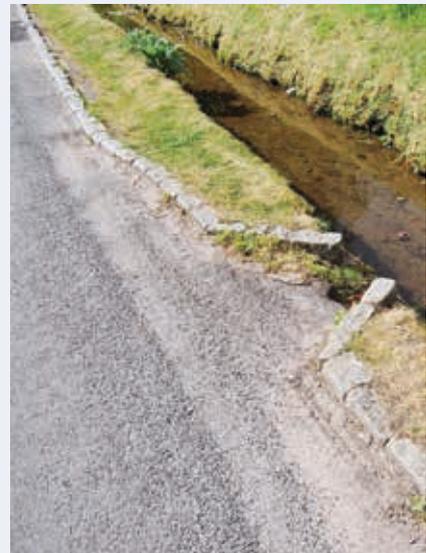
Take time to explain the range of options with their good and bad points. Show what can be achieved and be prepared to revise the scheme in the light of experience.



Original line of the road



No white lines



Sympathetic detail

Photographs: P. Tiplady

## Rationalisation of Win Green Hill Road Signs and Lines (B3081)

### Description of works

Signage on the B3081 at Win Green Hill was audited after a series of traffic accidents. Wiltshire Highway Authority decided that road safety would be improved by the rationalisation of the road signs and lines. This would have the added benefit of reducing clutter in the landscape.

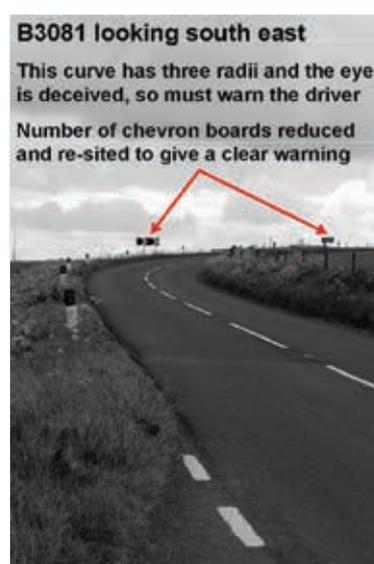
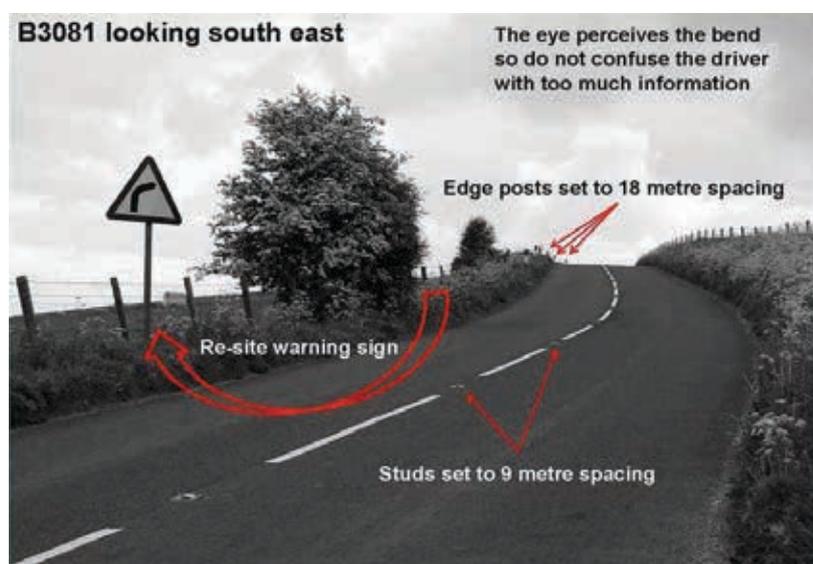
### Statement of what was implemented

Two 'road bends' and one 'road narrows' warning signs were removed because they were either misleading or badly sited. They were replaced by a single 'road bends' sign.

The randomly spaced road edge reflector posts were replaced with a series of evenly spaced posts that guide the driver's eye around the bends.

The white lines were simplified to be of even spacing and give a clear line through the bends.

Eight chevron warning boards were reduced to two, as only one bend was a composite curve. These were carefully sited to warn the driver but not distract when passed at speed.



Photographs: P. Tiplady

### Good practice elements

Decisions were made on the basis of a careful study and analysis. A significant amount of road side clutter was removed.

'Sign rationalisation' projects and 'clutter audits' should be undertaken to reduce signs and/or supports which prove unnecessary, improve sign location and improve safety

See good practice advice in **Section 2: Signage and Markings**

### Key features of success

Simplicity of the approach. The highway environment has been enhanced and road safety improved.

### Lessons learnt

A careful site survey and good data should guide decision making.

## AUDIT OF TRADITIONAL FINGERPOSTS

### Description of works

The Dorset AONB Partnership has created a community audit and photographic record of traditional fingerposts. Information is fed into a database for use by the local highway authority for statutory Asset Management responsibility. Discussions are in hand with Dorset County Council to develop a suitable scheme to remedy current neglect and poor refurbishment.



The aim is to:

- Condition survey, map and photograph all Dorset's traditional fingerposts
- Raise awareness of the importance of traditional fingerposts to local distinctiveness, both externally (public) and internally (Dorset County Council Highways).
- Provide Dorset County Council Highways with information for Highway Asset Management purposes.
- Develop and agree a specification for traditional refurbishment of fingerposts.
- Develop and implement a joint local highway authority and Parish scheme to encourage high quality, long lasting refurbishment of fingerposts.
- Engender local pride in traditional fingerposts and attempt to reverse the loss of these important historical highway assets.

### Statement of what was implemented

The project is ongoing but there is a web page with links to a downloadable audit form. A database is in place and updated as audit forms are received from the public.

### Good practice elements

Community involvement has raised awareness of the importance of historical highway assets and their importance to local distinctiveness. There is a positive contribution to Dorset County Council's statutory responsibility (Asset Management) and better management of the (decreasing) Fingerpost budget.

Roadside features should be sensitively repaired when required and preserved; and their setting conserved. The 'adoption' of such features by community based conservation groups should be encouraged.

See good practice advice in **Section 2: Historic roadside features**

### Key features of success

So far, a good public response for auditing as well as the submission of around 200 "historic" photographs of fingerposts and other historic assets.

### Lessons learnt

Continuing publicity is needed to keep up interest.

Public (in general) do care about traditional fingerposts (and their loss).

This will be a long-term project and that because of diminishing budgets, more traditional fingerposts may be at risk and even lost before any "rescue" measures are in place.

### Further information

[www.dorsetaonb.org.uk/our-work/rural-roads/fingerpostproject.html](http://www.dorsetaonb.org.uk/our-work/rural-roads/fingerpostproject.html)

## REFURBISHMENT OF TRADITIONAL FINGERPOSTS

### Description of works

Refurbishment of traditional fingerposts using high quality materials over a two year period.

### Statement of what was implemented

Following an Audit of its traditional fingerposts, Charminster Parish Council decided to restore the traditional finger posts in its area.

### Good practice elements

The use of high quality materials and refurbishment skills resulting in a longer life with less maintenance required. Local distinctiveness has been conserved and enhanced. Local authority maintenance costs have been reduced. Local pride has been enhanced through the Parish participation and “ownership”.

Roadside features should be sensitively repaired when required and preserved; and their setting conserved. The ‘adoption’ of such features by community based conservation groups should be encouraged.

See good practice advice in Section 2: Historic roadside features

Traditional cast-iron and timber directional signs are to be maintained and retained. Consideration should be given for their reintroduction when current signs need replacing. Those mileposts and directional signs in need of repair are to be sensitively conserved.

See good practice advice in **Section 2: Signage and Markings**



Restoration of traditional finger posts by Charminster Parish Council - Photographs Dorset AONB Partnership

### Key features of success

Community enthusiasm.

### Lessons learnt

Provided that there is good guidance and support, encourage communities to “just get on and do it”!

## EXAMPLES OF THE BENEFITS OF A SCHEME REVIEW

Not everything goes to plan! Despite our best intentions there are often unintended consequences. It is good practice to monitor and review the outcomes of our actions. That is how we build up our knowledge of best practice. In this section, we review completed schemes and identify changes that could improve the outcome in similar situations. Many factors are taken into account when deciding on an action. But the starting point must be a good evidence-base and an ability to integrate a range of guidance notes and policies. In each example presented, the issue is explained and followed by a note on good practice.

### The need for a 'signs audit'

It is good practice to run a 'signs audit' of highway routes to identify opportunities to remove or improve fixtures to improve road safety and reduce clutter. When schemes are first installed, great care is taken to site signs carefully.

### The Issue:

Without strong policies in place, signing can develop in an ad-hoc way, to the detriment of the motorist and the environment.

At the western end of Dinton (on the B3089), the threshold and first junction provide some examples of what can go wrong. As the village is approached from the northwest, the speed limit and threshold signs are hidden from the motorist by a set of directional signs. These have been erected in accordance with highway guidance manuals but the relationship with the existing signs has not been taken into account.

As the motorist enters Dinton, a series of school warning signs emerge. There is a school in the village but the placing of the signs seems premature and the repetition confusing. The motorist is then faced with a plethora of signs of varying importance, style and purpose. A mixture of traditional and more modern signs are fixed to a range of structures. Information is unnecessarily duplicated or scattered. The motorist does not know where to look for information and the village entrance looks uncared for.

Though Dinton has been used as an example it is not an exception. Similar situations can be found throughout the AONB, such as along the A350 where regulatory speed limit and cyclist warning signs are hidden by the recent addition of an electronic advisory speed sign.

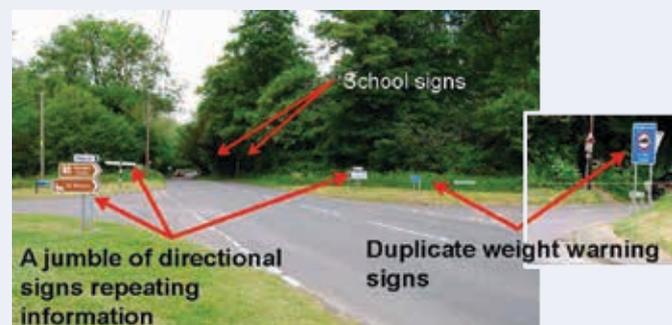
### Good practice note:

'Sign rationalisation' projects and 'clutter audits' should be undertaken to reduce signs and/or supports which prove unnecessary, improve sign location and improve safety.

The introduction of regular audits along the highway corridor, supported by accessible guidance on the regulations and good design, could ensure that signing is kept efficient and effective and opportunities found to enhance the landscape setting of the highway.

See good practice advice in **Section 2: Signage and Markings**

B3089 - Dinton western threshold



A350 - Hidden signs



Photographs: P Tiplady

## What's my line?

In rural areas, it is good practice to keep the use of white lines to a minimum. A road hierarchy can be developed that defines different levels of approach. Road markings include markings on the surface of the road for the control, warning, guidance or information of road users.

### The issue:

There are many situations where lines make the highway safer but unnecessary lines add to the urbanisation of the area.

To the north of Ashmore, there is a road clearly marked with centre lines. These lines suggest that vehicles can pass each other along the route. The unwary motorist would approach on-coming traffic with confidence and possibly some speed. But this road is only the width of one vehicle. The centre line is confusing and possibly dangerous. Traffic Signs Manual, Chapter 5 (Road Markings) it states: *'On rural roads below 5.5 m in width, over-running of the carriageway edge can occur if centre line markings are provided, causing maintenance problems. Drivers might also expect a road marked with a centre line to be wide enough for opposing lanes of traffic to pass. In these circumstances the centre line should be omitted'* (Department of Transport 2003).

A different situation can be found on the B3081 as it passes through Tollard Royal. In this case there has been pressure to slow traffic down in the village. That has been achieved by imposing a speed limit and using road edge lines to give the perception of a narrow road. The motorist's eye sees a single track road even though the highway is not that narrow.

Unfortunately, neighbours along the route have presumed that the edge lines are the highway boundary. Their gardens now encroach upon the road. This has the effect of actually narrowing the highway with the potential to damage vehicles. It also imposes an additional highway maintenance cost as the vegetation must be cut back.

### Good practice note:

When reviewing lining following resurfacing/ surface dressing, consideration should be given to whether the lining, including 'Slow' markings, can be omitted. The presumption should be that white lines will not be used in a rural setting unless they are essential for road safety.

See good practice advice in **Section 2: Signage and Markings**

Consideration should be given to the removal of road edge and centre markings from some lanes. This can send a message to motorists about the way in which the road might be used - more slowly and with greater care. It also helps to retain the rural character of the area through which the road passes, often helping the road itself to form part of that character.

See good practice advice in **Section 2: Traffic Management**

The road to Ashmore - White lines reassure the driver, but the road is single track (inset)



Photograph: P Tiplady

### B3081 - Tollard Royal traffic calming



Photograph: P Tiplady

## TISBURY - DESIGN THE JUNCTION FOR THE PLACE

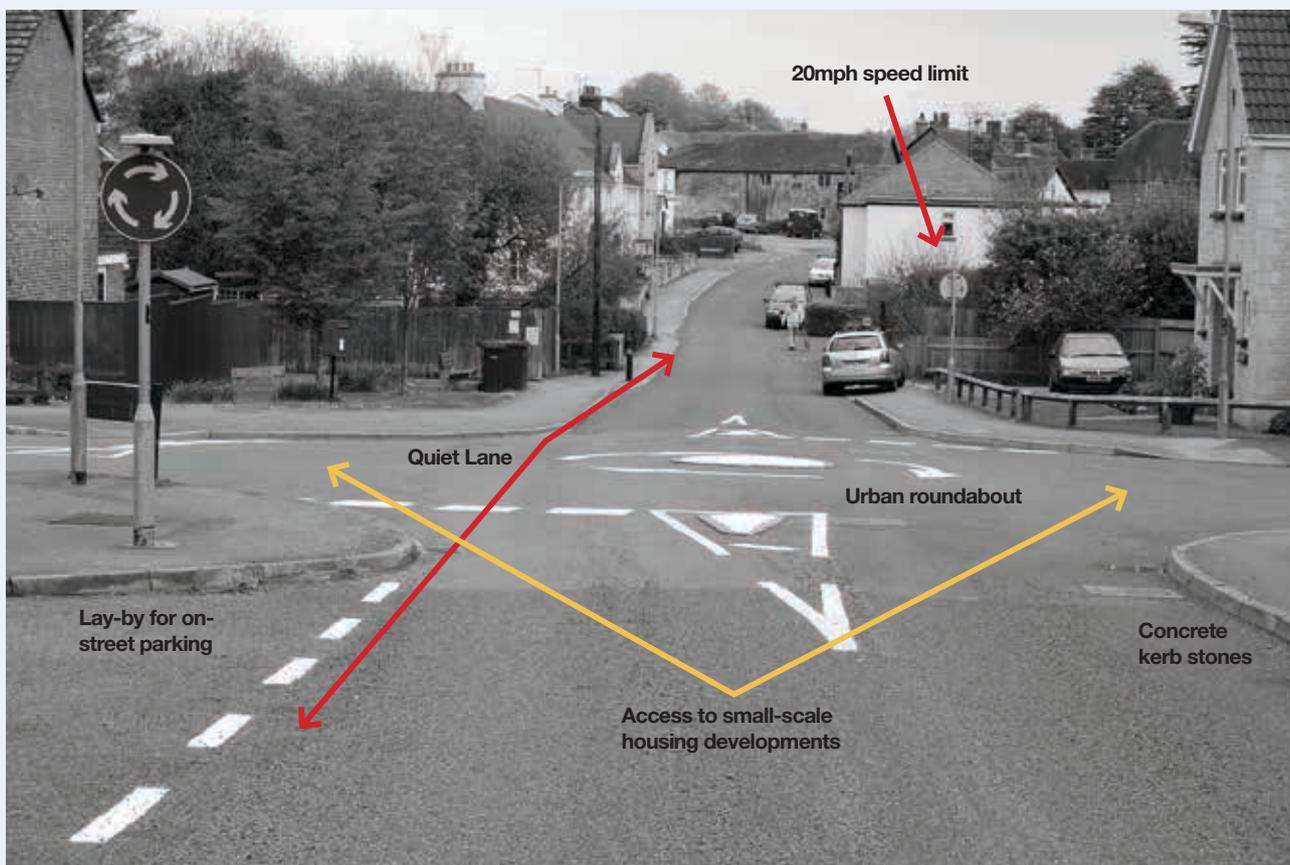
Junction improvements are sometimes necessary on safety grounds or as a result of development in an area. The design of any new scheme should appear to be an integral part of the landscape and historic road pattern. Solutions should reinforce local identity by careful choice of detailing, materials and street furniture.

### The issue:

Roundabouts are normally associated with urban areas or major roads, where the volume of traffic means they are considered to be essential. Regulation requires lighting, mandatory signs and lines.

In Tisbury, there is a quiet lane running from the town centre into a residential area and designated as a 20 mph zone. There are a number of housing areas off this road. Access was required for a new housing development of eight houses, known as the Mallards. The access was opposite that for an existing, much larger development. During the development control process, the planning committee decided that the junction would require a roundabout, the first along this lane. This was in response to local concerns about traffic speed. The design of the junction is one replicated in every urban area. A series of signs and lights have had to be installed and no opportunity to use local materials has been taken. But there is very little traffic along the lane (even during the commuting periods) and the whole area is a 20 mph zone. The nature of the lane has been significantly altered for little benefit.

### Tisbury - Housing development junction



Photograph: P Tiplady

### Good practice note:

Junction improvements should only be considered where there is a proven safety need and the introduction of a roundabout should only be considered as a last resort.

See good practice advice in **Section 2: Junctions**

## DINTON TRAFFIC CALMING; WHEN IN A HOLE, STOP DIGGING!

In general, traffic travels faster on rural roads than it does on urban roads. Speed of travel is the greatest factor influencing the severity of injury in a traffic accident so the speed of vehicles on our rural roads needs addressing. Though it is possible to impose speed limits, without taking effective enforcement action little change will occur without the imposition of potentially intrusive structures. A better approach is to promote responsible driving.

### The issue:

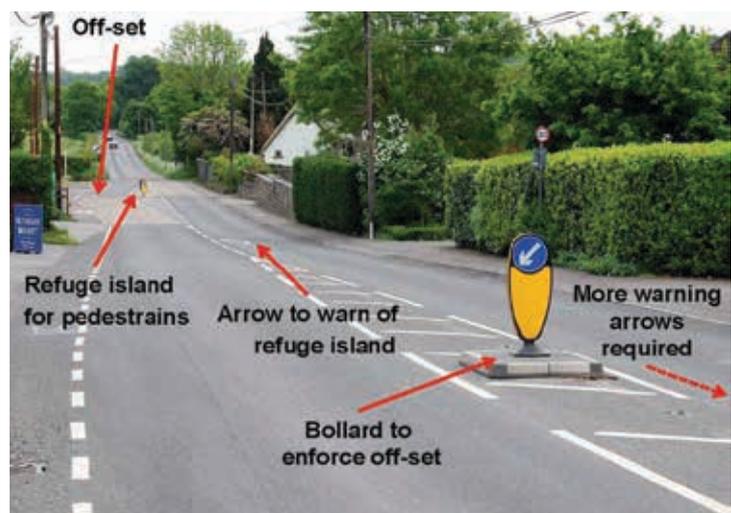
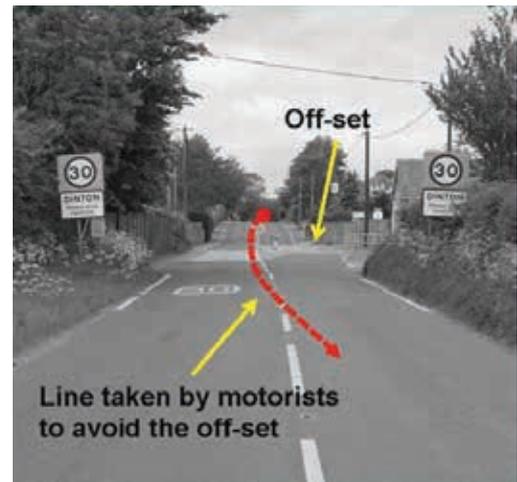
Dinton straddles the B3089, a busy route that links Salisbury to the A303. The road through Dinton has been straightened and, despite a 30 mph restriction, speeding vehicles are a significant problem.

Permission was given to develop a small housing scheme by the eastern threshold into Dinton. The pedestrian access to the centre of the village was on the opposite side of the road. Given the speed of traffic, it was decided that there was a need for a safe crossing. Refuge islands are a relatively inexpensive method of improving crossing facilities for pedestrians but poor design can both degrade the landscape character of an area and put people at risk.

As a part of the planning gain associated with the development, land was given to the highway authority. The B3089 was widened by creating an off-set at the entrance to the new development and a refuge island added in the middle of the carriage way, complete with white lines and a high-grip road surface. The village threshold was given an urban feel.

Unfortunately, motorists did not react as expected. Off-sets can be a very effective way of slowing down traffic as it passes a boundary where the motorist perceives a need for a different driving approach. In Dinton, the offset only affects the exit lane; the route from the open-road into the village is unimpeded by the off-set, so in-coming traffic is not slowed. When leaving the village, the motorist sees the open road and wishes to accelerate but sees a 'chicane' impeding the route. The observed reaction of a number of motorists was not to slow down and pass through the off-set but to accelerate within the village and 'overtake' the refuge island.

The police increased enforcement actions but this did not give a permanent or an affordable solution. It was decided to undertake further engineering works. An additional traffic island, complete with reflective bollard and white lines, was added within the village setting to remove the opportunity to 'overtake' the refuge island. This has added yet more urban infrastructure into a rural highway and still does not slow down traffic entering the village from the east.



Photographs: P Tiplady

**Good practice note:**

The approach should be to match the traffic to the roads by promoting responsible driving, not the roads to the traffic. The highway authority should be bold when seeking solutions to excessive speed through settlements. Schemes that increase uncertainty, natural calming and shared space should all be considered before urban solutions are implemented.

See good practice advice in **Section 2: Traffic Calming**

## 4. Selected Reading

### Fundamental studies to understanding and using the document

Cranborne Chase AONB Management Plan for 2014-2019, (2014)

Dorset County Council, Dorset Highways Natural Environment Policy (Biodiversity) 2010

Dorset County Council, Rural Roads Protocol (April 2008)

[www.dorsetforyou.com/media/pdf/j/l/Rural\\_Roads\\_Protocol\\_\\_April\\_2008.pdf](http://www.dorsetforyou.com/media/pdf/j/l/Rural_Roads_Protocol__April_2008.pdf)

Land Use Consultants, Cranborne Chase AONB Integrated Landscape Character Assessment (Final Report), Countryside Agency (June 2003)

Purkiss J., Reclaiming Our Rural Highways - A scoping report on issues affecting the character of roads and streets in rural Dorset, Halcrow and the Dorset AONB Partnership (2005)

[www.dorsetaonb.org.uk/text01.asp?Pagelid=297](http://www.dorsetaonb.org.uk/text01.asp?Pagelid=297)

Rouse E., Historic Landscape Characterisation Project, Cranborne Chase AONB with English Heritage (July 2008)

Rouse E., The Cranborne Chase AONB Historic Environment Action Plans (2010)

The Landscape Practice, B3081 Landscape Appraisal - Cann Common to Sixpenny Handley, Cranborne Chase AONB (March 2009)

The Landscape Practice, Landscape Sensitivity Study (Final Report), Cranborne Chase AONB (May 2007)

Wiltshire County Council policies on roads, highways and pavements (July 2010)

[www.wiltshire.gov.uk/parkingtransportandstreets/roadshighwayspavements.htm](http://www.wiltshire.gov.uk/parkingtransportandstreets/roadshighwayspavements.htm)

### Supporting studies

Bell H. and Burden R., Cranborne Chase AONB Tranquillity Mapping - Investigative Study, (April 2008)

Bell H. and Burden R., Cranborne Chase AONB Tranquillity Mapping - Ground Truthing Methodology & Interim Report, (July 2010)

Chris Blandford Associates, Salisbury District Landscape Character Assessment - District-Wide Assessment, Salisbury District Council (February 2008)

Chris Blandford Associates, Salisbury District

Landscape Character Assessment - Settlement Setting Assessments, Salisbury District Council (February 2008)

Cranborne Chase AONB, Position Statement Number 1, Light Pollution (2008)

Cranborne Chase AONB, Position Statement Number 3, The Relevance of the Setting of the AONB (2008)

Cranborne Chase AONB, Position Statement Number 4, Historic Landscape Characterisation (2009)

Dorset County Council, Bournemouth, Poole and Dorset Local Transport Plan 3 2011 - 2026 (April 2011) ISBN: 978-0-86251-037-4

[www.dorsetforyou.com/media.jsp?mediaid=162817&filetype=pdf](http://www.dorsetforyou.com/media.jsp?mediaid=162817&filetype=pdf)

Dorset County Council, Managing Dorset's Rural Roads - Our new approach to road management in a high quality environment.

[www.dorsetforyou.com/ruralroads](http://www.dorsetforyou.com/ruralroads) (undated)

Dorset County Council, Natural Environment Guidance sheets: Roadside Verges (Draft May 2010)

Dorset County Council, Street Lighting and Illuminated Signs Policy (February 2011)

Entec UK Ltd., Dark Skies and Light Pollution Study (Final Report), Cranborne Chase AONB (June 2007)

Entec UK Ltd., Roads and Planning (Final Report), Cranborne Chase AONB (May 2007)

Hamilton-Baillie B., The Traffic and Rural Settlements Pilot Studies in Maiden Newton and South Perrott Parishes, Hamilton-Baillie Associates, Dorset AONB Partnership (June 2009)

Hampshire County council, Hampshire Local Transport Plan 2011 - 2031 (March 2011)  
[www3.hants.gov.uk/transport/local-transport-plan.htm](http://www3.hants.gov.uk/transport/local-transport-plan.htm)

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## 5. Appendices

### Appendix 1: **General duties and responsibilities of a highway authority**

A highway authority has a common law duty to maintain the highway and “put the highway in such good repair as renders it reasonably passable for the ordinary traffic of the neighbourhood at all seasons of the year without danger caused by physical condition.”

#### **Highways Act 1980**

This common law duty is translated into statute by **Section 41** of the Highways Act 1980. The duty extends to all highways maintainable at the public expense, with the exception of trunk roads, which are the responsibility of the Highways Agency.

The authority is responsible for maintaining and repairing the highway, which can be a road, cycle tracks, walkway, footpath over which every member of the general public has a right of passage. There is no obligation to improve a highway, only to maintain it. Highway authorities are under a duty to maintain the highway in a fit state to accommodate the ‘ordinary traffic which passes or maybe expected to pass’ along them.

Under **Section 41**, the highway authority is under a duty to maintain the highway but that duty is not absolute. The highway authority must take such care in all the circumstances as is reasonably required to ensure the highway is not dangerous for traffic.

**Section 58** states that a highway authority needs to take reasonable care of the road but it is not liable for the consequences of a matter if it can prove that ‘such care as in all the circumstances was reasonably required to secure that part of the highway, to which the action relates, was not dangerous for traffic’ What is reasonable will depend on a number of factors, including:

- the character of the highway and traffic;
- the standard of maintenance appropriate for a highway of that character and used by that traffic;
- the state of repair a reasonable person would expect to find the highway;
- whether the Highway Authority knew that the condition of the highway was likely to cause danger and where the Highway Authority could not have reasonably have been expected to repair that part of the highway before the incident occurred, what warning notices of its condition had been displayed.

**Section 62** gives highway authorities a general power to improve the highway but such works are discretionary.

**Section 130** imposes a general duty for the highway authority to assert and protect the rights of the public to use and enjoy the highway. In order to fulfil this duty, the highway authority must remove encroachments and obstructions of the highway.

[www.access-legal.co.uk](http://www.access-legal.co.uk)

## Appendix 2: Legislation and guidance information on signing and lining

Signing/ Lining Type	Relevant Points
General Items	<ul style="list-style-type: none"> <li>Highway Authorities have no statutory duty to place signs or lines on the public highway.</li> <li>Mounting order of signs on a single post (Traffic Signs Regulations and Directions 2002 (TSRGD), Chapter 3, 1.26).</li> <li>Mounting of signs in general, height etc (TSRGD Chapter 3, 1.21),</li> <li>New post is not required for every new sign, where possible, use existing street furniture.</li> </ul>
Regulatory Signs	<ul style="list-style-type: none"> <li>No change in the appearance of the sign is permitted; sign must be as is permitted in TSRGD. Size of sign is based on 85th %ile speeds (see table in TSRGD Chapter 3, Appendix A).</li> <li>The provision of repeater signs for a speed limit is set out in table 14.4 TSRGD Chapter 3 for distances between repeaters. Repeaters must not be placed for a 30mph limit in an area subject to a system of street lighting (TSRGD - Direction 11(4)).</li> </ul>
Warning Signs	<ul style="list-style-type: none"> <li>Various warning signs in TSRGD.</li> <li>Sizing of the sign, distance from hazard and forward visibility are all set out in TSRGD Chapter 4, Appendix A.</li> <li>Supplementary plates can be placed in conjunction with warning signs but only those with the wording as permitted in TSRGD. X-heights in Chapter 4, Appendix B.</li> </ul>
Miscellaneous Information Signs 'Unsuitable for...'	<ul style="list-style-type: none"> <li>Wording can be varied to that which is permitted in the TSRGD.</li> <li>No change in colouring.</li> <li>An x height suited to the 85th% speeds should be selected.</li> </ul> <p>Please note: In cases of inappropriate route selection by HGVs, the Highway Authorities do not erect these signs in the first instance.</p>
Boundary Signs	<ul style="list-style-type: none"> <li>Signs 2402.1 and 2403.1 from TSRGD are both boundary signs.</li> <li>Sign 2402.1 is a simpler sign and there is more flexibility on the subject of what other signs it can be mounted with. For example, it would be acceptable to mount this sign with a speed terminal sign, which is not permitted with sign 2403.1.</li> <li>Sign 2403.1 is more complex, with addition information such as the Parish/ Town crest/logo or historic information.</li> </ul>
Parking Signs	<ul style="list-style-type: none"> <li>Double "yellow" lines indicating "no waiting at any time" no longer need to be accompanied by a sign, unless also prohibiting loading/ unloading.</li> <li>Limited waiting signs should be erected within 15m of each end of the restriction and then at 30m intervals.</li> <li>Single "yellow" lines should also be within 15m of each end of the restriction and then at 60m intervals (TSRGD Chapter 3, 6.34).</li> <li>Disabled parking bays must have a sign to make it enforceable.</li> <li>Disabled parking bays without the associated sign are advisory and cannot be enforced.</li> </ul>
Lining	<ul style="list-style-type: none"> <li>It is permitted to use the colour primrose when marking "yellow" lines in a protected landscape. It is also standard practice to mark them 50mm wide, guidance in TSRGD Chapter 5, 23.18.</li> <li>Guidance on "yellow" lining elsewhere can be found in TSRGD Chapter 5, 20.4.</li> <li>Access Protection Markings are permitted in TSRGD but they are only advisory.</li> </ul>
Destination Signs	<ul style="list-style-type: none"> <li>Highway Authorities only allow Tourism Signs when the establishment meets the criteria set out in their Policies. The design and provision of the signs, together with maintenance costs, are typically met by the establishment to which they are provided.</li> </ul>

## Appendix 3: A model Environmental Audit Checklist

<b>Environmental Audit Checklist</b>		YES	NO
<b>Cultural Context</b>			
Conservation Area		<input type="checkbox"/>	<input type="checkbox"/>
Listed Building / Structure / Monument		<input type="checkbox"/>	<input type="checkbox"/>
Archaeological Issues		<input type="checkbox"/>	<input type="checkbox"/>
World Heritage Site		<input type="checkbox"/>	<input type="checkbox"/>
What changes have been made to ensure the project minimises any identified impact on historic assets?			
		<i>RELEVANT IF THE FORM IS TO BE USED THROUGHOUT A HIGHWAY AUTHORITY AREA.</i>	
<b>Environmental Context</b>			
Area of Outstanding Natural Beauty		<input type="checkbox"/>	<input type="checkbox"/>
Area of Landscape Value		<input type="checkbox"/>	<input type="checkbox"/>
Special Protection area (SPA/SAC)		<input type="checkbox"/>	<input type="checkbox"/>
Site of Special Scientific Interest		<input type="checkbox"/>	<input type="checkbox"/>
Protected Species		<input type="checkbox"/>	<input type="checkbox"/>
Tree Preservation Order		<input type="checkbox"/>	<input type="checkbox"/>
Flooding implications (is it within a Flood Risk Area)		<input type="checkbox"/>	<input type="checkbox"/>
Will any vegetation be removed or disturbed		<input type="checkbox"/>	<input type="checkbox"/>
Will trees be felled outside the bird-nesting season		<input type="checkbox"/>	<input type="checkbox"/>
What changes have been made to ensure the project minimises any identified impact on environmental assets?			
<b>Design Issues</b>			
What changes have been made to the design and use of material to ensure the project respects the surroundings? Has signage and street clutter been minimised?			
<b>Sustainability Issues</b>			
Does the project use sustainable, locally sources materials? If not, what is the justification for importing materials? Can you demonstrate how the project has minimised its waste creation and maximised opportunities to recycle?			
How does the scheme put pedestrians first (then cyclists followed by other road users)?			

## 6. GLOSSARY

<b>Abutment</b>	That part of a bridge which supports the structure (be it arch, beams or slab) and retains the approach embankment.
<b>Accommodation works</b>	The fences, walls and other minor works provided for an owner whose property or land is directly affected by an improvement scheme.
<b>Aggregate</b>	Sand, gravel, broken stone or other similar inert material.
<b>Area of Outstanding Natural Beauty (AONB)</b>	Nationally important and nationally designated areas (under the National Parks and Access to the Countryside Act 1949 and the Countryside and Rights of Way Act 2000) solely for their landscape qualities, for the purpose of conserving and enhancing their natural beauty (which includes landform and geology, plants and animals, landscape features and the rich history of human settlement over the centuries).
<b>Arch ribs</b>	A series of widely spaced narrow stone arches which form the main structure of many medieval bridges. The spaces between the ribs are covered by masonry to support the roadway. The same term is applied to any series of narrow arches forming a wider bridge regardless of the material of construction.
<b>Bitumen</b>	A mixture of hydrocarbons obtained from either natural deposits or the distillation of crude oil and used to bind aggregates together.
<b>Bitumen-coated material</b>	A graded aggregate that has been coated with bitumen, a major part of its strength being derived from the interlocking of the aggregate.
<b>Bitumen emulsion</b>	Bitumen which is 'mixed' with water to make it flow easily, even when cold, thus enabling it to be sprayed on to the road surface. Once spread, the water evaporates and the bitumen 'sets'.
<b>Blacktop</b>	All-embracing term used to describe all types of black road surfacing.
<b>Blading</b>	The levelling of soil by an earth-moving machine fitted with a suitable blade.
<b>Blinding</b>	The process of spreading fine material (sand, stone dust or fine gravel) over a surface in order to fill small holes prior to rolling.
<b>Caisson</b>	A cylindrical or rectangular structure for keeping water and mud from flowing into foundation excavations. It sinks under its own weight as excavation proceeds and is eventually incorporated into the foundation.
<b>Camber</b>	The curved shape of the road surface when seen in cross section.
<b>Cantilever</b>	A beam which is firmly fixed at one end and free at the other; an overhanging beam.
<b>Carpet coat</b>	A top layer of road-surfacing material.

<b>Cast iron</b>	An alloy of iron with about 3 per cent carbon content which has a low melting point and which can be poured when molten into intricate moulds. It is brittle and weak in tension.
<b>Chamfered voussoirs</b>	The wedge-shaped stones used to construct a masonry arch are called voussoirs. As a decorative feature the exposed edge can be trimmed off at an angle, or chamfered.
<b>Channel</b>	The edge of the carriageway, adjacent to a verge or kerb, which collects surface water and carries it to gullies or ditches.
<b>Clutter</b>	Redundant, unnecessary or obsolete signs, poles and street furniture which through their size, design and/or insensitive placing, are intrusive features within the landscape or the streetscene within settlements.
<b>Conservation Area</b>	Conservation areas are designated under the Planning (Listed Buildings and Conservation Areas) Act 1990, primarily by local authorities, for their special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance. Note that the implications are that character is different from appearance and that we have a duty to enhance and improve, as well as to preserve. (See Planning Policy Statement 5: Planning for the Historic Environment for further guidance)
<b>Conserve</b>	To safeguard the essential character of a valued landscape or built environment which enhances its character whilst managing it in such a way as to ensure its sensitive evolution.
<b>Context</b>	The setting or surroundings of a site of proposed road works or development. Aspects of the setting are likely to influence the way in which the development/works are sensitively designed, maintained or managed.
<b>Cost-benefit analysis</b>	A technique for comparing the cost of a road scheme with the benefits it provides for road users, in order to ascertain whether the scheme provides value for money.
<b>Cut and fill</b>	The preparation of a road foundation by excavation (known as cut) and the building of embankments (known as fill).
<b>Cut-back bitumen</b>	Bitumen to which a lighter solvent fluid is added to make it thinner so that it can be sprayed on to the road surface.
<b>Cutwater</b>	The sharp or rounded end of a bridge pier designed to reduce turbulence in flowing water.
<b>Decision-making Process</b>	A logical sequence of decisions which ensures that a proposed course of action has been considered 'in the round' and in a way which is open to scrutiny by others.
<b>Deck</b>	That span of a bridge which carries the road surface and traffic.
<b>Design speed</b>	The curvature of a new road alignment is designed to enable vehicles to travel safely at a certain anticipated speed. This is known as the design speed and varies with different types of road, e.g. a motorway is designed for 120k.p.h. (73m.p.h.).

<b>Direct Labour Organization (DL)</b>	The term used to describe a local authority's work organization, including the manual labour, its equipment, management and administration.
<b>Fine-cold asphalt</b>	A finely graded surfacing material that comprises aggregates of less than 6mm bound together with cut-back bitumen.
<b>Flagging</b>	The surfacing of a pedestrian area with square or rectangular slabs, usually of pre-cast concrete, but sometimes of natural stone.
<b>Flail mower</b>	A grass-cutting attachment fitted to a tractor (side or rear); it works by means of a number of cutters secured by lengths of chain to a spindle that rotates at high speed.
<b>Flexible composite pavement</b>	Road construction in which a bituminous wearing course is laid over a cement-bound road base.
<b>Flexible pavement</b>	Road construction in which a bituminous wearing course is laid over a non-cement-bound road base.
<b>Gateway</b> (see <i>Threshold</i> )	The entrance to a settlement where the road environment could be sensitively modified to influence driver behaviour.
<b>Geotechnics</b>	The scientific study of the properties and behaviour of materials in the ground when they are subjected to loads from buildings and structures.
<b>Grade separated junction</b>	A road junction where at least one road is bridged over another.
<b>Grouting</b>	The filling of empty spaces in rock, loose stones or concrete with a material which sets hard.
<b>Gunite</b>	Also known as sprayed concrete. A mixture of cement, coarse sand and water which is sprayed against existing rock or concrete to build up the surface.
<b>Hand pitching</b>	The placing by hand and compaction by rolling, of large stones on edge which are wedged by small stones to form a stable base for a road.
<b>Hierarchy</b>	The range of road and lane categories from major to minor and the appropriate treatment of each category depending on its position in the hierarchy.
<b>High-performance bitumen</b>	A bitumen to which various chemicals are added to make it better able to withstand heavy traffic.
<b>Highway superintendent</b>	An officer who is responsible to a Divisional Surveyor for inspection of highways, identification of work needed and supervision of work in progress in a defined area.
<b>Hot-rolled Asphalt</b>	A high-quality, long-lasting, road-surfacing material produced from a mixture of bitumen and aggregate, used mainly on heavily trafficked roads.
<b>Infrastructure</b>	The system of public services (roads, drainage, water supplies, telecommunications) which serve a community.

<b>Kassel kerb</b>	A concave-section kerb stone which is intended for use at bus stops served by modern low floor buses. The Kassel kerb guides the tyre of the stopping bus in such a way as to improve the alignment of the bus's doors with the kerb and slightly raised boarding platform.
<b>Knapping hammer</b>	The type of hammer that was used to break up roadstone by the roadside.
<b>Landscape Character Assessment</b>	A tool for identifying the distinct and recognisable patterns of elements in the landscape that give a locality its sense of place, describing what makes it different from its neighbouring areas.
<b>Lean-mix concrete</b>	Concrete containing a small amount of cement and therefore limited in strength.
<b>Local Distinctiveness</b>	Aspects of the local built and natural environment which individually or collectively contribute to a sense of being different from other areas or regions.
<b>Macada</b>	A mixture of graded stones and fine sand or stone dust which when rolled forms a strong road-making material. Originally developed by Robert Macadam (1756-1836) from whom it takes its name. Modern macadam are normally coated with bitumen to form bituminous macadam.
<b>Maintenance</b>	The repair or replacement of highway surfaces, verges or signage.
<b>Maintenance - cyclic</b>	Routine highway-maintenance operations to ensure that roads are safe and drainage operates satisfactorily. Includes grass cutting, gully emptying, sweeping, sign cleaning, and clearing of channels and ditches.
<b>Management</b>	The planned sequence of maintenance. Also the measures taken to ensure appropriate responses to speed, traffic volume and the relationship between pedestrians and vehicles, balancing risk with the environmental quality of an area.
<b>Multiple arch orders</b>	Two or more different shapes of masonry arch which occur on the same bridge.
<b>Overlay surfacing</b>	A layer of bituminous macadam placed on top of an existing road surface to increase its strength and at the same time remove any surface irregularities.
<b>Pavemen</b>	The whole road construction made up of layers of different materials.
<b>PCU</b>	Passenger Car Unit. A unit of road traffic equivalent for capacity purposes to one normal private car. The private car is the unit and other vehicles are measured in relation to that unit, e.g. 1 lorry = 3 PCUs.
<b>Polymers</b>	Synthetic materials including rubber that are added to bitumen to increase its strength for use in roads that carry large volumes of traffic.
<b>Pore water pressure</b>	The pressure of water in the pores of a saturated soil.

<b>Pre-stressed concrete</b>	Concrete in which potential tensile forces have been eliminated by the application of a compressive force. This is often achieved by passing high-tensile steel cables through holes in the concrete and stretching them with a hydraulic jack. The ends of the cables, in tension, are fixed by means of wedges as the jack is removed and this compresses the concrete.
<b>Racked up</b>	The process of using small-sized chippings to fill the spaces between larger chippings on a road surface in order to knit them together.
<b>Regulating</b>	Forming a surface to the required shape or contour. A regulating course is a layer of material of variable thickness applied to a road surface to adjust the shape in preparation for an overlaying course of uniform thickness.
<b>Rigid composite pavement</b>	Pavement in which the main structural element is a high-strength concrete slab, over which a bituminous wearing course is applied.
<b>Rigid pavement</b>	Pavement in which the main structural element is a high-strength concrete slab that is also the wearing course.
<b>Risk Aware</b>	The need to assess the possible risks arising from a task or decision and to weigh these against the environmental and community benefits of that decision. The assessment may result in transferring more responsibility to the driver, to heighten awareness of the possible consequences of his/her actions.
<b>Road base</b>	One or more layers of material, placed above the sub-base and below the surfacing, that constitutes the main structural element of the pavement.
<b>Scalpings</b>	Small-sized poor-quality material removed from quarried rock before crushing and screening.
<b>Setts</b>	Small rectangular blocks of hard stone, such as granite, that are laid tightly together and grouted to form a very hard-wearing, but somewhat uneven, road surface.
<b>Shared Surface</b>	An area of the road environment, where vehicles, pedestrians and animals share the same highway surface without kerbs and pavements.
<b>Shear</b>	The effect across a beam or arch resulting from the opposing forces of loads acting downwards and the reactions at the supports acting upwards.
<b>Side drainage</b>	A drainage system comprising open ditches or pipes that run parallel to the carriageway, in the verge.
<b>Slurry seal</b>	A mixture of fine aggregate and bitumen emulsion which is spread on to a road in thin layers by means of special machinery or hand tools to seal it and provide a new surface.
<b>Soffit</b>	The under-surface of a beam or arch.
<b>Spandrel</b>	The side wall built on an arch to retain the filling material which carries the roadway.

<b>Sterling</b> <i>(also Starling)</i>	Piles, usually timber, driven into the river bed to protect bridge piers from the effect of the current and floating debris. In medieval times baskets filled with stones were used to achieve the same effect.
<b>Sub-base</b>	A layer of material on the natural ground and under the road base to strengthen it and/or improve the drainage.
<b>SUDS</b>	Sustainable Drainage Systems (SUDS) is a design philosophy that uses a range of techniques to manage surface water as close to its source as possible.
<b>Surface dressing</b>	A method of sealing a road surface and at the same time restoring its texture and skid resistance by spraying on a film of bitumen and covering with stone chippings.
<b>Threshold</b> <i>(see Gateway)</i>	The entrance to a settlement where the road environment could be sensitively modified to influence driver behaviour.
<b>Traffic Calming (Natural or Psychological)</b>	Measures taken to reduce speed and collision through the use of existing features in the landscape or street-scene, such as hedgerows, bends, restricted sight lines, boundary walls or buildings, or changes of road surface, to communicate to the driver that hazards exist and extra vigilance should be exercised. This approach contrasts with the widespread reliance on generous road markings and signage.
<b>Transport and Road Research Laboratory (TRRL)</b>	The government's central laboratory at Crowthorne in Berkshire which undertakes research and development and provides advice on the management and maintenance of highways.
<b>Waterbound macadam</b>	Form of road construction that consists of broken stone, slag or gravel, compacted with the help of water and a binding agent such as sand or stone dust.
<b>Watertabling</b>	A local term used to describe the composite operation of cleaning the surface and channels of a rural road, together with associated ditches, grips and easements, in order to ensure that water flows off the road surface as quickly as possible.
<b>Wearing course</b>	The top, visible, layer of a road upon which traffic runs.
<b>Wet mix</b>	A material consisting of graded stone spread and compacted at specified moisture content.
<b>Windro</b>	A ridge formed by the overspill of soil off the sides of the blades of earthmoving equipment.
<b>Wrought iron</b>	Pure iron with very low carbon content. It is soft and cannot be used to make castings.
<b>Yardage</b>	A traditional expression, no longer used, which described a volume measured in cubic yards.



