The Kent Downs Area of Outstanding Natural Beauty

RURAL STREETS AND LANES: A DESIGN HANDBOOK

July 2009

Halcrow

hamilton-baillie associates

KENT DOWNS Area of Outstanding Natural Beauty

NATURAL ENGLAND

Kent County Council

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The handbook provides information on the design criteria and good practices to be followed when designing and implementing works on the Kent AONB rural streets, lanes and environs. It is the responsibility of the implementing authority to satisfy itself that the relevant legislation, codes and standards are being complied with. This handbook has been adopted as policy by the Kent County Council Policy Overview Committee.

Contents

Acknowledgements

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Dedication

Much of the thinking in this handbook has been inspired by the work of Hans Monderman. Hans was a civil engineer and road safety expert and pioneered the concepts of the “naked street” and “shared space” by removing all the clutter that was supposed to make travel safe for the pedestrian - traffic lights, railings, kerbs and road markings. He created a new surface on which motorists and pedestrians “negotiated” with each other by eye contact.

Much of his work was carried in the Netherlands, though in recent years streets all over the world are being redesigned to the Monderman “shared space” model. He passionately believed that segregating cars and pedestrians was ineffective. Instead, he claimed a natural interaction between the driver and the pedestrian would create a more civilised environment. His maxim was: “If you treat drivers like idiots, they act as idiots. Never treat anyone in the public realm as an idiot, always assume they have intelligence.” Hans died of prostate cancer on January 7, 2008, aged 62. We dedicate this handbook to him.

Rural Streets and Lanes

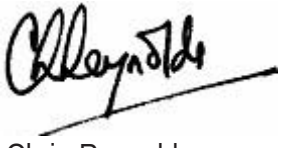
"I think that I shall never see,
A signboard lovely as a tree,
Indeed unless the signboards fall,
I'll never see a tree at all."

With thanks to Ken Bultitude (Chairman, Stanford Parish Council) and apologies to Ogden Nash.

The magnificent character of the Kent Downs Area of Outstanding Natural Beauty - with its protected landscapes, dramatic views, rich habitats, ancient woodlands and beautiful lanes and villages - is worthy of special conservation and enhancement. This Rural Streets and Lanes Design Handbook aims to provide a new approach to the design of existing and new roads in the Kent Downs. Drawing on best practice across Europe, the handbook aims to develop a streetscape that we can be proud of; one that contributes to and enhances the special character of the landscape and built environment.

Too often our impressions as we journey through the Downs are of clutter, street signs, garish yellow and white lining, uncoordinated street furniture and unsympathetic traffic management schemes. There are real opportunities for a revised approach. We hope that this handbook will inspire a change in the streetscape and "lanescape" of the Kent Downs. It shows what can be done by paying attention to the context, to detail and quality in design and to creating the right experience. We urge you to see what you can do to improve your local lanes and streetscape.

Nick Johannsen



Chris Reynolds


Canterbury
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GIVE
End
End
Howletts Wild Animal Park
East Kent Country Tour

01 Introduction

1.1 The Rationale for the Handbook

The Kent Downs Area of Outstanding Natural Beauty (AONB) is a very special place, displaying a remarkably rich and varied tapestry of local landscape characteristics, materials and traditions. The Kent Downs are a nationally important and protected landscape - the dramatic landform and views, rural lanes and streetscape, rich habitat, extensive ancient woodland, mixed farmland, rich historic and built heritage, and tranquillity and remoteness are all unique in the UK.

The objectives of this handbook are to support this special context by:

- Identifying the special characteristics and features of the rural roads network that contribute to the distinctive character and quality of the AONB;
- Providing high quality detailed design guidance for consideration in the development of new highway treatments and improvements;
- Promoting the conservation and maintenance of the key characteristics and features;
- Raising awareness and understanding of the importance of the rural roads network, including its historic/heritage, landscape and biodiversity importance.

Conserving and enhancing this precious landscape and built environment resource is critically important and offers more than simple “aesthetic” rewards. Distinctiveness provides a vital sense of identity in an increasingly homogenised world. A clear identity is important in economic, social and environmental terms. Analysis of successful communities and rural areas in the UK increasingly points to a direct

relationship between improved quality of life and economic success and the quality of the streetscapes and the public realm. Carefully designed, well-managed streets are not merely a desirable outcome of successful economies; they are a significant driver of tourism, regeneration and competitiveness.

1.2 The Problem

At times, however, the immediate streetscape environment works against this intrinsic quality. The myriad traffic signals and signs, garish road markings, obtrusive railings, barriers and gateway features, kerbs, bollards and lighting all provide unnecessary clutter and traffic-related paraphernalia which can lead to creeping “suburbanisation”.

Our journey through the Kent Downs is, on many occasions, fashioned by poor practice in traffic engineering and design. A lack of sense of place and distinctiveness and increased noise levels pervade. The resulting visual confusion diminishes the quality of life in the AONB – for residents and visitors. Much of the clutter is driven by perceived safety concerns. However although we might know where and how we should drive, cross the road, walk and cycle, the rules are often all too apparent, and detract hugely from the special local environment. Transport planners and engineers have accorded the motorist priority over other street users.

New development pressures, poor design of new development within sensitive landscapes, illegal access and increasing recreational use of the countryside all add to these difficulties. Concerns over the quality and use of the streetscape are, of course, symptoms of a wider problem. Increases in traffic volumes run counter to broad sustainability objectives, and are linked to the debate concerning transport and its contribution to climate change. There are additional concerns here in terms of transport and social inclusion and the promotion access for all.

The conventional approach to traffic management in the public realm?

Pervasive growth of traffic and traffic paraphernalia in the Kent Downs AONB

Classic streetscapes in the Kent Downs

The loss of rural quality in the AONB (Chilham)

But, too often, clutter pervades. The “traffic environment” adds little to the quality of the streetscape

These problems of poor streetscape design adversely affect the economic, environmental and social well-being of the Kent Downs AONB. The current approach to highway design, often using standardised and template designs, is ineffective, disruptive and costly. This handbook calls for a better balance. A new set of principles – drawing on excellence in traffic calming and shared space practice across Europe and elsewhere – can integrate the disciplines of transport and urban planning, highway engineering and urban and landscape design. This handbook shows how to reverse the trend towards generality and restore the distinctive quality and character of the streetscape in the Downs.

Minimal use of signage and clutter. Pedestrians, cyclists and vehicles all share the same space (Lavenham, Suffolk)

Creating shared space through carefully designed roads and footways (Allerod, Denmark)

Subtle change in surface treatments are used to articulate the meaning and use of space (Lavenham, Suffolk)

1.3 The Guidance Gap

This handbook fills an important gap in the guidance available for the design of streets. The diagrams opposite illustrate the road hierarchy around Sevenoaks, as an example, and the types of streets covered by existing guidance documents – essentially only the Motorway and Trunk Road network (covered by the Design Manual for Roads and Bridges, Highways Agency, 1997) and new residential estate roads (covered by the Manual for Streets, DfT, 2007; and previously Design Bulletin 32, DTLR, 1992; and Places, Streets and Movement, DETR, 1998).

The vast majority of streets in the Kent Downs are not covered by existing guidance documents - there is a "policy vacuum" in terms of providing a consistent way forward for streetscape design in areas of landscape quality. The benefits of better streetscape design however can be great -in economic, social and environmental terms. Better streetscapes can lead to a much improved quality of life in the Kent Downs.

Rural streets and lanes: the use of "streets" or "lanes" within this handbook refers to all rural roads, streets, lanes, including those in villages, towns and rural areas. This does not include motorways.

Any new street or lane design should ensure that vulnerable people – children, older people and disabled people – can cross safely and independently. There is a duty under the Disability Discrimination Act and the Disability Equality Duty to not discriminate against disabled people. Any new schemes should therefore be carefully designed with all potential users in mind.

1.4 The Statutory Duty of Regard

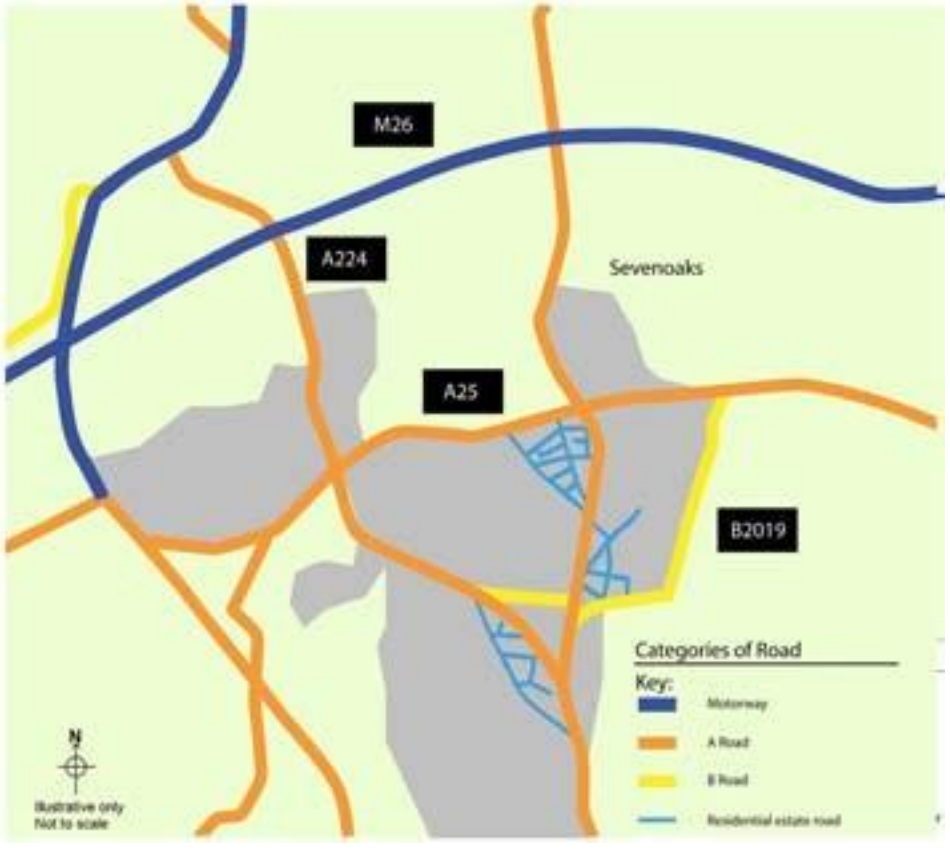
"The Statutory Duty of Regard"for Areas of Outstanding Natural Beauty provides the basis for work on this topic. Under Section 85 of the Countryside and Rights of Way (CRoW)Act 2000, a statutory duty is placed upon all public bodies and "relevant authorities" to have regard to the purposes of the AONB designation in their functions and operations.

The AONB Management Plan (Kent Downs AONB Unit, 2009) draws on this duty and presents a vision for the Kent Downs AONB, to 2029, with aims and policies which seek to achieve the vision. The management plan has been adopted by the local authorities in the Kent Downs AONB. Within the vision is the following aspiration:

"Improved management ensures that the Public Rights of Way and much of the highway network is safe, quiet and convenient for walkers, cyclists and horse riders. Maintenance of the Public Rights of Way and highway network will be sympathetic to biodiversity and landscape character."

In addition "A strategic approach to the use of road signage, furniture, design and maintenance that conserves and enhances the local character and distinctiveness of the AONB, and promotes better route management will be pursued."

Hence this rural streets and lanes design handbook has a statutory basis. Following the advice within it will help public bodies act in accordance with the duty of regard. It is the second of three handbooks planned for the Kent Downs AONB. The first of these,the 'Kent Downs Landscape Design Handbook' was published in January 2005. A 'Building Design Handbook' is planned for the future.



The road hierarchy around Sevenoaks

The streetscape design guidance gap: most streets and lanes in the Kent Downs AONB are not covered by the guidance found in "DMRB" or the "Manual for Streets" (see routes shaded in white)

In terms of area covered, the handbook covers the whole of the Kent Downs AONB (but its general guidance could be applicable elsewhere in rural Kent). The Kent Downs is one of 41 landscapes in England and Wales that has AONB designation, and this signifies national and international landscape importance. A map of the AONB is shown opposite. The primary purpose of an AONB designation is to conserve and enhance the natural beauty of the landscape. Street and lane design within the Kent Downs should accord with this purpose.

Twelve local authorities are found within the Kent Downs AONB; these are Kent CC,Ashford BC,Bromley LB,Canterbury CC,Dover DC, Gravesham BC, Maidstone BC, Medway CC, Sevenoaks DC, Shepway DC, Swale BC and Tonbridge and Malling BC.

Litigation concerns are of course important to the design of rural streets and lanes. The development of non-standard highway designs should be accompanied by written records which are kept setting out the decision-making process used (see further commentary in the Annex 3). Close before and after implementation monitoring may also be useful.

1.5 Who Should Use This Handbook?

The expected audience for the handbook is wide and purposely so. It includes:

- Highway and transportation planners and engineers;
- Developers, architects, planners, urban designers and surveyors;
- Local planning authorities, elected members of local and parish councils, environmental organisations and local heritage groups;
- Public utilities, telecommunications providers, local businesses, farmers, landowners and farm contractors.

This range of stakeholders reflects the disparate interests in streetscape design – multi-disciplinary inputs are required if successful design is to be achieved.

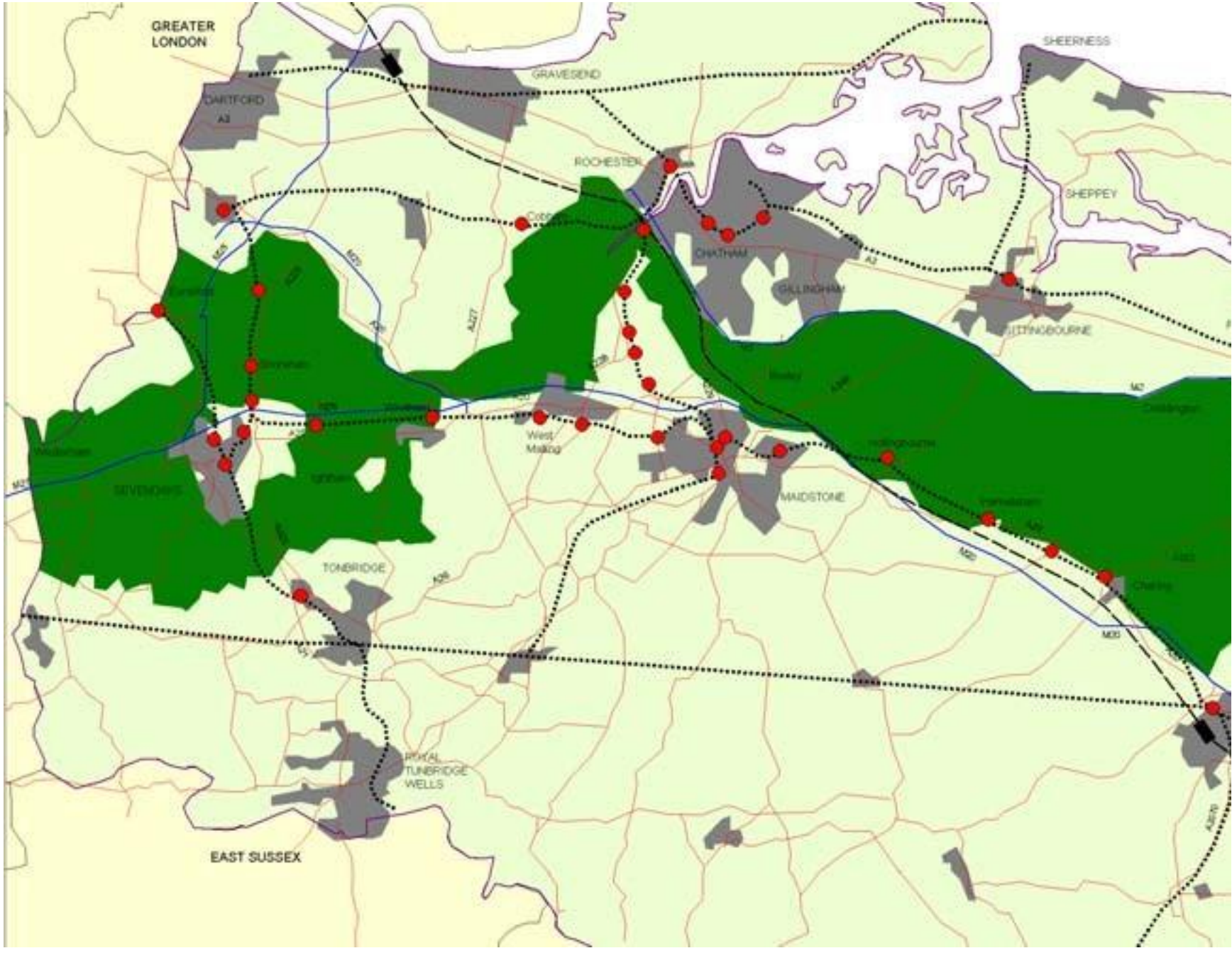
1.6 Using the Handbook

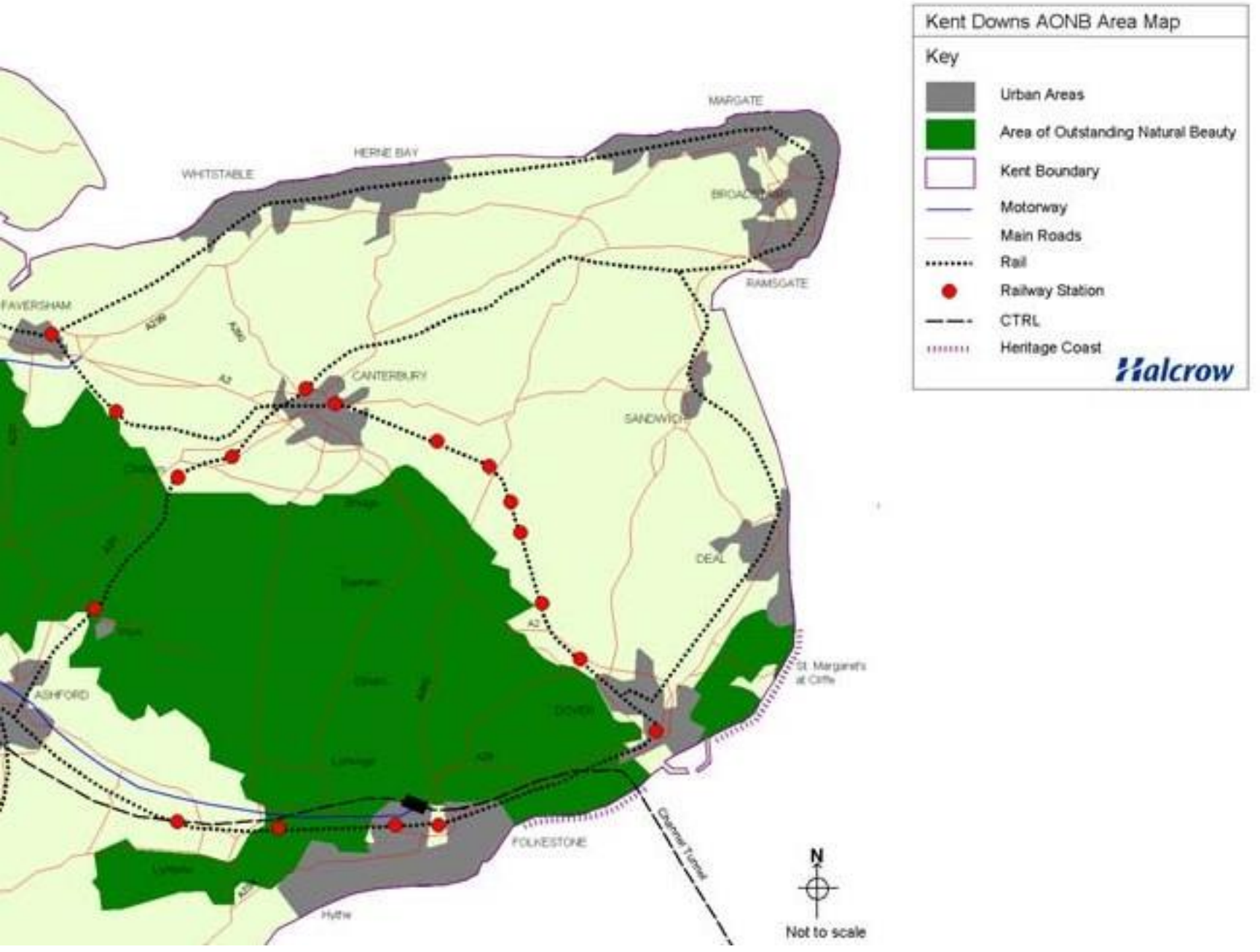
The good practice principles and design examples used in this handbook provide lessons that are relevant to improved streetscape design practice in the Kent Downs. The principles are often generally applicable to protected landscape areas.

The case study examples used have been chosen to represent a wide variety of circumstances. They are not intended to be a statement of the best and worst practice in the Kent Downs, or in the wider UK. None of these case studies represent work that is due to take place, they are simply given for illustrative purposes. It is hoped that readers will approach the issues raised in a constructive manner. In addition, examples of good practice should not be treated as “model templates” to be copied regardless of context. Careful thought in the design of each project is still required. This handbook should therefore be used to promote better practice at the local level. Its aim is to stimulate awareness and show how improvements can be made. The commentary comprises four further main sections:

- Section 2: The special context – a review of the distinctiveness of the landscape and streetscape in the Kent Downs AONB, and the potential of good practice such as contextual design;
- Section 3: Fixing the streetscape – design principles for the Kent Downs covering priority for pedestrians and cyclists, de-cluttering, traffic management, road surfaces and paving, street furniture, signing, landscape and ecology, and historic and modern features;
- Section 4: Case study design guidance – a series of case studies from the Kent Downs AONB, illustrating the use of the previously-developed design principles;
- Section 5: The toolkit – including a process to follow and options and materials to use, for the public and other interested stakeholders who are seeking to improve their local streetscape.

The Kent Downs AONB




Kent Downs AONB Area Map
Key
Urban Areas
Area of Outstanding Natural Beauty
Kent Boundary
Motorway
Main Roads
Rail
Railway Station
CTRL
Heritage Coast
Halcrow
MARGATE
HERNE BAY
WHITSTABLE
RAMSGATE
FAVERSHAM
CANTERBURY
SANDWICH
DEAL
ASHFORD
FOLKESTONE
Channel Tunnel
St. Margaret's at Cliffe
Hythe
N
Not to scale

02

The Special Context

2.1 The Character of the Kent Downs

The Kent Downs is one of the most precious landscapes in the UK, incorporating a tremendously rich natural environment and a beautiful historic built environment. Inextricably linked to both are the many routes and lanes across the area. This section sets out:

- The characteristics of the landscape, streets and lanes in the Kent Downs;
- Changes that are degrading this special quality;
- A new way forward for streetscapes based on "context sensitive" design and "shared space" approaches.

Understanding the context is critical to design that enhances the landscape. The rich network of winding, narrow and secluded lanes, connecting the villages and settlements, contributes hugely to the special quality of the landscape within the Kent Downs.The rural streets and lanes are a key visual feature of the area and make a very important contribution to amenity, ecological quality and historic character.

Some of the major historic roads, which are often present day 'A' and 'B' roads, also retain valuable features, including wide road verges, hedgerows and hedgerow trees.The streetscape of the rural settlements is characterised by a wealth of memorable features, such as historic market squares, narrow streets and alleys, old stone walls and bridges, all of which contribute to local distinctiveness.

Roads and smaller lanes are also important for the distinctive views of the Kent Downs landscape that can be appreciated from them, both dramatic panoramic views and glimpses of more intimate landscapes. However, some major routes, including motorways, trunk roads and bypasses have also made their mark on the landscape and often lead to loss of visual amenity, local character and tranquillity.

The features that make the Kent AONB distinctive are explored below, including the key historic, ecological and landscape features, but with a specific focus on highways and streets.The following sections identify the features that make the Kent AONB distinctive.They review the key historic, ecological and landscape features found in the Kent Downs, with a specific focus on highways and streets.

The intrinsic beauty of the Kent Downs: the historic ford at Eynsford

One of many village greens in the Kent Downs and surrounds (Bearsted)

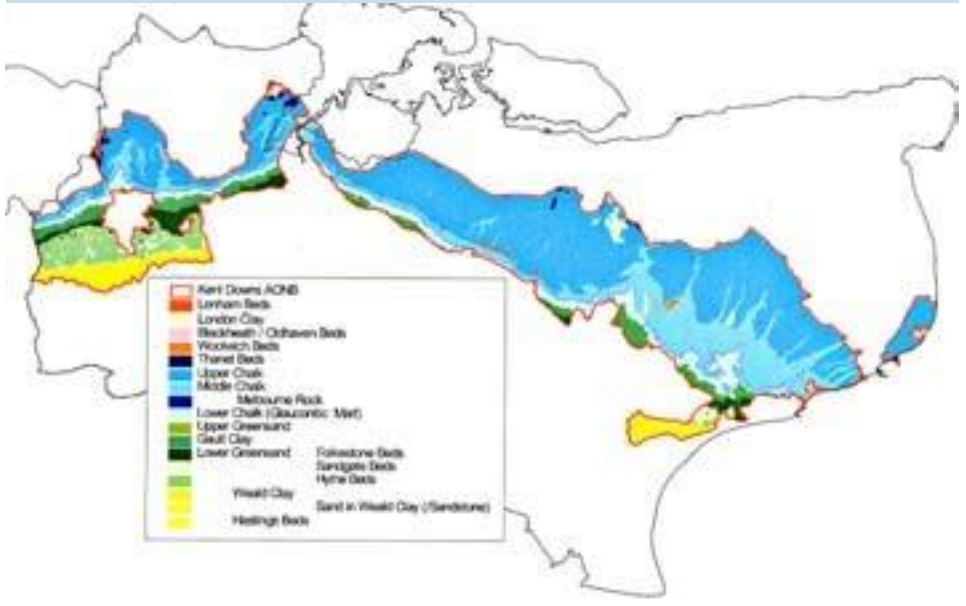
The streetscape as an integral part of the built environment (Chilham)

Landscape Character Areas

A landscape character assessment for the Kent Downs AONB was published in 1995 and a 'Landscape Design Handbook' in 2005. These identify 13 character areas and many of these areas are subdivided into local/sub-character areas.

Kent Downs AONB: Landscape Character Areas

1. Darent Valley - Brasted to Farningham: the River Darent runs between the Greensand Ridge and the chalk downs in a wide valley enclosed by deciduous scarp-top woodlands above cultivated lower slopes;
2. Sevenoaks Ridge - Westerham to Ightham: extensive coniferous and deciduous woodlands, concealing a network of narrow lanes, with heathy commons along the top of the southern scarp;
3. Low Weald - Crockham Hill to Shipbourne: a landscape of gentle, underlating farmland, stretching south from the wooded scarp of the Greensand Ridge;
4. West Kent Downs - West Kingsdown to Shorne: an area of ridges and valleys, where extensive deciduous woodlands surround large arable fields on the plateaux, often separated by thick shaws;
5. Kemsing - Ryarsh: the Vale runs along the foot of the Downs; whilst the steep scarp rising to the north is a patchwork of woodland and chalk grassland. Thick hedges along the Pilgrim's Way separate the scarp from the large scarp-foot arable fields;
6. Medway - Birling to Cuxton: Wouldham to Aylesford: wooded upper scarps with large arable fields on the scarp foot;
7. Hollingbourne Vale - Boxley to Westwell: a narrow strip along the scarp and scarp foot, includes yew-dominated woodlands in the west to open, cultivated fields, extending up the scarp to the east;
8. Mid-Kent Downs - Boxley to Selling: a series of wide ridges and dry valleys; tiny scattered villages are linked by a network of single track lanes. There are many extensive coppice woodlands and conifer woodlands;
9. Stour - Brook to Chartham: deciduous scarp-top woodlands occur on both sides of the valley, with mixed farmland below;
10. . East Kent Downs - Crundale, Bridge, Capel-le-Ferne to Lyminge: includes a wide expanse of downland, with long ridges and narrow, dry valleys, emphasised by wooded upper slopes;
11. Postling Vale – Brabourne to Newington: covers the undulating countryside between the chalk scarp above Folkestone and the Hythe escarpment above Romney Marsh;
12. Lympne – Bonnington to Hythe: scrub and species-rich, rough grassland on the scarp, giving these slopes a 'wild', undisturbed character;
13. South Foreland – Dover to Kingsdown: includes the White Cliffs at Dover to Kingsdown Heritage Coast and the downland behind. An open, exposed landscape with farms and small settlements, fringed by trees.



Geological features in the Kent Downs contribute to the development of landscape character areas

Source: Kent AONB (2005) Landscape Design Handbook. For further details see the source publication.

The lane as a shaping feature of the Kent Downs; the soft edge provides a transition from lane to fields (East Brabourne)

Historic Streetscape Context

The Kent Downs includes many historic lanes.These provide a rich history of the routes of movement used by people to communicate and trade in earlier times. There are a variety of different types of routes, as outlined below:

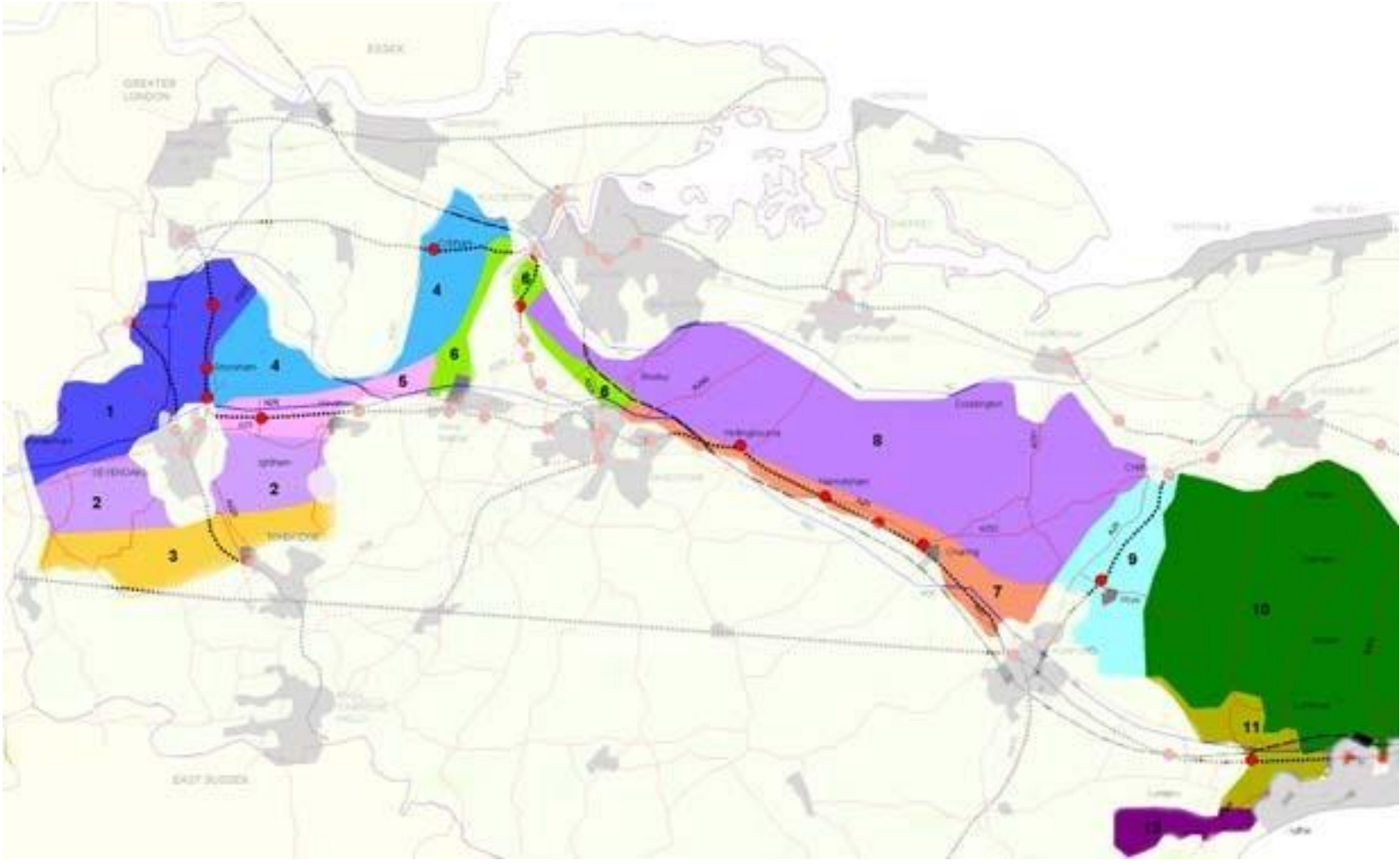
- Prehistoric tracks/routeways: discounting small field lanes, these are best regarded as lines of movement. It seems likely that some routes have prehistoric origins providing a choice of routes along the scarp foot or along the ridge of the North Downs.
- Roman roads: the major Roman road in Kent – Watling Street - lies outside the Kent Downs AONB. However, Stone Street on the present day B2068 between Canterbury and Lympne passes through the East Kent Downs, and includes a single ten-mile straight alignment, descending the scarp to the south of Stowting in what appears to be a broad curve reducing the effect of the steep slope. The curve may be made up of a series of short straight lengths.
- Medieval roads: many of the narrow twisting lanes of the Kent Downs have their origin in piecemeal clearance of heavily wooded countryside in the medieval period. Some also developed as long distance driveways for swine and sheep, running across the grain of the landscape from north to south.
- Turnpike roads: some current A and B roads through the Kent Downs were 18th century Turnpike roads, often bypassing the villages. Some characteristic features are still visible, such as broad road verges, occasional milestones and distinctively shaped toll cottages.
- Historic streetscape of villages and towns: a few, small historic market settlements, e.g.Wye and Chilham, are found in the Kent Downs.These have small squares and a more urban streetscape with properties at the back edge of streets and smaller alleyways. Most of the smaller villages and hamlets, e.g. Detling and Bearsted, have a very dispersed settlement pattern which grew up from loose clusters of farms and cottages, joined by a complex network

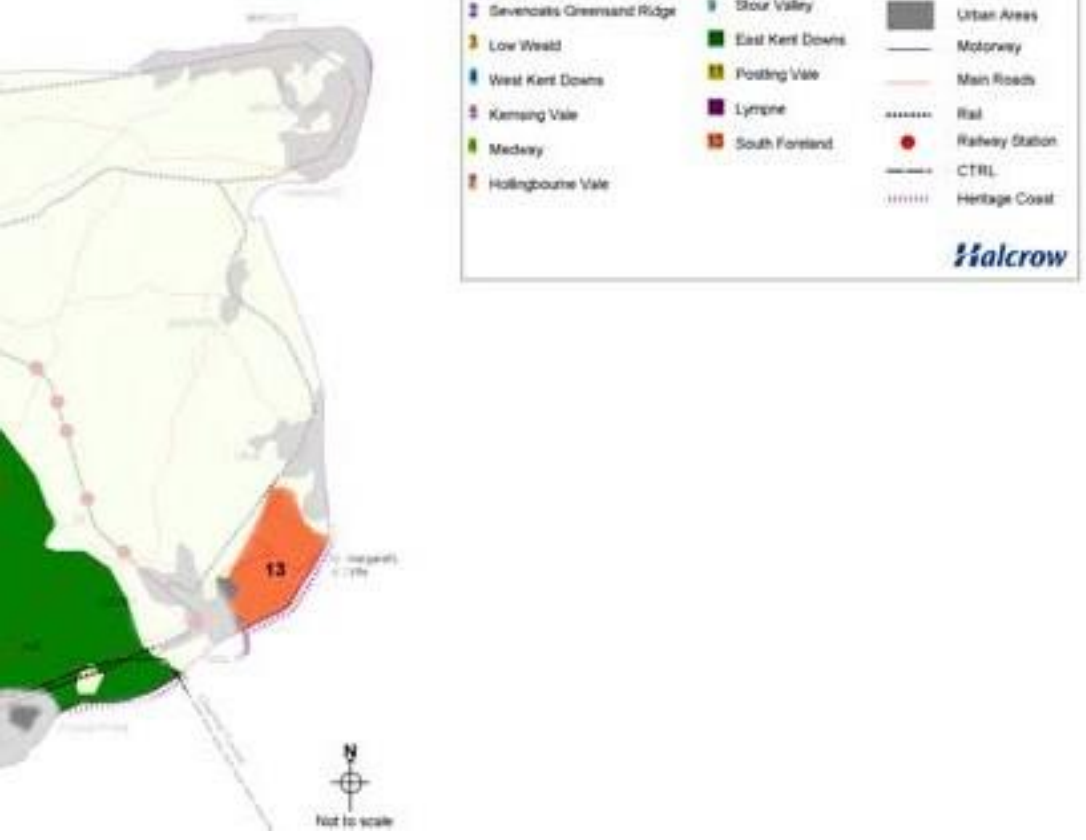
- of lanes, back lanes and paths, sometimes incorporating small greens and commons. Where the main transport routes developed, infills of houses and cottages tended to create enclosed village streets.

A medieval trackway dating from at least the 1300s (The Pilgrims' Way (near Kemsing)

Many routes have their origins as prehistoric tracks, Roman roads or turnpikes (Shipbourne)

Landscape character areas in the Kent Downs




Kent Downs AONB Landscape Character Areas
Key
1 Darent Valley
2 Sevenoaks Greensand Ridge
3 Low Weald
4 West Kent Downs
5 Kemsing Vale
6 Medway
7 Hollingbourne Vale
8 Mid Kent Downs
9 Stour Valley
10 East Kent Downs
11 Postling Vale
12 Lympne
13 South Foreland
Kent Boundary
Urban Areas
Motorway
Main Roads
Rail
Railway Station
CTRL
Heritage Coast
Halcrow
13
N
Not to scale

Types of "Lane": Public Rights of Way (PROW)

Kent has over 4,200 miles (6,876 km) of public footpaths, bridleways and byways. Like a public road, a public right of way is a highway which anybody may use at any time. Public rights of way are recorded on a definitive map and statement (a legal record of public rights of way). Each route is classified according to the nature of the public's rights along them.There are four categories of Public Right of Way intended for a variety of users, as outlined below:

1. Footpath: for walkers only. Prams, pushchairs or wheelchairs are allowed along a public footpath but many routes may not be physically suitable for these. Public footpaths are mostly waymarked with yellow arrows.
2. Bridleway: for walkers, horseriders and pedal cyclists. Cyclists must give way to walkers and horseriders. Bridleways are mostly waymarked with blue arrows.
3. Byways Open to All Traffic (BOAT): Often just referred to as Byways. They are used by vehicles, cyclists, horseriders, horsedrawn vehicles and walkers. Because of their nature, they are used mainly as a footpath or bridleway. BOATs are mostly waymarked with red arrows.
4. Restricted Byway: for walkers, horseriders, cyclists and horse drawn vehicles. Restricted byways are mostly waymarked with purple arrows.

Source: Kent County Council website

Highway Character in the AONB Landscape Character Areas

A number of distinctive characteristics and features of highways can be identified within each of the landscape character areas, these are discussed below:

Darent Valley – Westerham to Farningham

- The Valley includes the ancient trackway of the Pilgrims' Way, at the base of the North Downs scarp, marked by minor roads and footpaths, and abutted by the historic park of Chevening;
- Open sweeping views are apparent from the Pilgrims' Way across and along the valley;
- The North Downs Way also runs along the ridge, and also is in part an ancient trackway following a more wooded route;
- Noise and visual intrusion is sometimes apparent from the M25;
- The relatively rural and secluded North Darent Valley has historic routes just above the floodplain and distinctive beech avenues along roads and tracks leading up the valley sides;
- The streets and villages of Shoreham, Eynsford and Otford are becoming busy and congested with modern day traffic;
- Distinctive, narrow stone and brick bridges and a ford are found at Eynsford;
- Narrow, historic and wooded lanes on top of the North Downs around Knockholt are subject to "suburbanising" influences.

Ford at Eynsford, Darent Valley

Sevenoaks Greensand Ridge – Westerham to Ightham

- The ridge is home to ancient drove routes, typically wooded and sunken, and concealed in the wider landscape;
- Distinctive oblique angle road junctions;
- Woodbanks are marked by pollarded beech and oak, and an old chestnut coppice;
- Heathy commons and acid grassland verges abut ridgetop roads and tracks;
- Some panoramic views are evident across the Low Weald from minor roads on the higher part of the south facing greens and scarp;
- Ragstone/sandstone walls are a distinctive boundary feature to historic properties in the small settlements;
- The A25 on the northern edge of the greensand has a wooded character in places as a result of parkland tree belts adjacent to it.

The route into Shoreham

Ancient drove route on the Sevenoaks Greensand Ridge

Low Weald - Crockham to Shipbourne

- The weald includes a network of small, winding, hedge-rowed and wooded lanes;
- A combination of a narrow verge, ditch and hedge usually separate the lanes from the small fields;
- Scattered small ponds are found next to farm tracks and paths on former drove routes;
- Trimmed roadside hedgerows with hedgerow trees allow intermittent views;
- Distinctive greens and commons are found throughout the weald, e.g. at Shipbourne.

Beautiful lanes in the Low Weald

The Common at Shipbourne

Hedge lined lanes near Crockham

West Kent Downs – West Kingsdown to Shorne

- The Kent Downs includes a maze of narrow, winding and steeply banked roads;
- Tall, thick roadside hedgerows are evident with oak standards, but many have been lost in the north due to extensive arable cultivation and 'creeping' urban edge influences;
- A tranquil character is found on the lanes in the south; however it is busier and more congested in the north.

The Cobham streetscape

Lane overlooking arable fields in the West Kent Downs

Kemsing Vale – Kemsing to Ryarsh

- Narrow wooded lanes are found on the chalk scarp;
- The ancient Pilgrims' Way is found at the foot of the scarp, partly marked by minor roads, partly by bridleway. The trackway is sometimes bounded by thick overgrown hedges but with occasional glimpsed views of the valley;
- Trimmed hedgerows are evident along lanes crossing the valley;
- The M26 and M20 has an adverse visual impact on the valley;
- Ragstone walls are an occasional feature of road boundaries in the villages.

Village in Kemsing Vale

The Pilgrims' Way

The ancient trackway is of prehistoric origin, running across southern England, from Winchester in the west to Canterbury in the east. One of the most historically significant routes in the Kent Downs, the trackway is 192km in length; two thirds of which is still identifiable today.

The pilgrimage route reached its height of popularity around the time of the writing of Chaucer's Canterbury Tales (1387-1400).There is much controversy about which route was actually used by Pilgrims on their way to Canterbury.The currently marked route is mostly at the foot of the Downs, but some argue the Pilgrims would have taken the drier route along the ridge. However, the ridge is heavily wooded, and would have had less readily available water. Today the trackway continues as a National Trail under the protection of Natural England.

The tranquillity of the Pilgrims' Way

Medway – Birling to Cuxton and Wouldham to Aylesford

- Visual impact and noise is evident from the A228 and M20 road corridors;
- The lanes on the upper scarps have a wooded character, but hedgerows have been lost on lower slopes;
- Distinctive yew tunnel with chalk exposures is found in the area.

Yew tunnel with chalk exposures (Boxley)

Hollingbourne Vale – Boxley to Westwell

- The street village of Boxley has distinctive ragstone and flint wall road boundaries and footways at a higher level than the roadway.
- Thick hedges are found along the ancient trackway of the Pilgrims' Way with long sections of the Way acting as a non-vehicular route;
- Historic cross scarp droveways are evident;
- The open steep chalk escarpment allows dramatic views across the Weald from some lanes and paths;
- Chalk grassland verges;
- Roadside hedgerows have been lost in the area over time.

The Pilgrim's Way; hedgelined along this section

Mid Kent Downs – Boxley to Selling

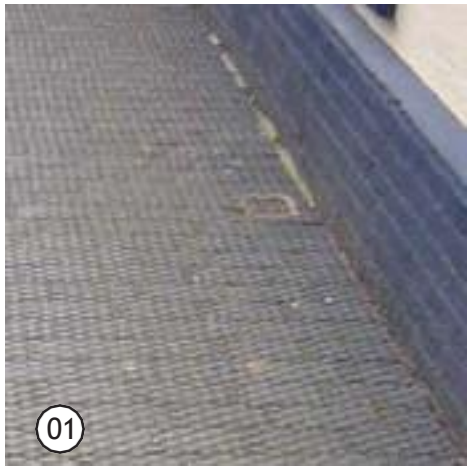
- The network of tiny hedgerowed lanes and paths has a strong rural character;
- The chalk grassland verges on the plateau areas are often sunken with steep banks, crossing wooded valleys and combes;
- Occasional sweeping views from the highway are found across open parts of the landscape;
- Lines of poplar and alder trees providing shelter around orchards and form road boundaries in the Faversham area.

Lane in the Mid Kent Downs; providing views across the landscape; brick walls often surround the major estates

Stour Valley

- The main A28 route is a historic turnpike road;
- A network of narrow, winding and tall hedged lanes are found on the valley sides, with trimmed hedgerows in the vale;
- The streetscape of Wye has many Georgian facades;
- A distinctive medieval square is found at Chilham;
- Stone brick and flint boundary walls are often found in the villages;
- Stone and brick bridges cross the River Stour.

The Village of Wye - includes a Georgian centre



01. Distinctive paving in Wye
02. Interpretation panel in Wye
03. A bridge with an iron balcony in Wye
04. Originally built in 1638

East Kent Downs – Crundale Bridge/Capel-Le-Ferne to Lyminge

- The Kent Downs include a maze of sunken narrow track lanes with banks and tall hedgerow boundaries on valley sides, together with chalk grassland verges on the plateau;
- Dramatic views are found of the rolling chalk downs, valleys and combes from some major roads;
- White picket boundary fencing is a distinctive feature in some villages;
- Greens and small commons are a feature alongside roads in other small settlements;
- Ancient, species-rich hedgerows are associated with lanes around many villages.

Fabulous views across the rolling chalk East Kent Downs

Postling Vale – Brabourne to Newington

- Noise and visual impact is associated with the major roads leading to the Channel Tunnel;
- Open views are evident from the lanes on the dramatic chalk scarp;
- Enclosed hedge rowed lanes are found around Saltwood;
- Suburbanisation and ribbon development is sprawling along the roads in the valley, with subsequent hedgerow loss.

New road alignments detract from historic character

Tree-lined lanes in Postling Vale

Postling Vale: new junction detracts from the look of the AONB

Lympne – Bonnington to Hythe

- Strongly wooded and sunken lanes are found on the Hythe scarp;
- Narrow, straight and doglegging lanes exist on Romney Marsh, bounded by reed filled ditches. Few hedgerows remain.

Brick and ragstone wall and cottage in Lympne

View over Romney Marsh

Farm gates on Romney Marsh

South Foreland – Dover to Kingsdown

- A few roads and lanes are found in the South Foreland;
- Tracks and paths with unimproved chalk grassland margins and remnant hedgerows are evident;
- Impressive views of huge rolling fields, sea and sky;
- Open commons crossed by footpaths;
- Heritage, white cliffs coast below.

Dramatic views across coastline: the White Cliffs and beachfront

Streetscape Features: an Integral Part of the Valued Landscape

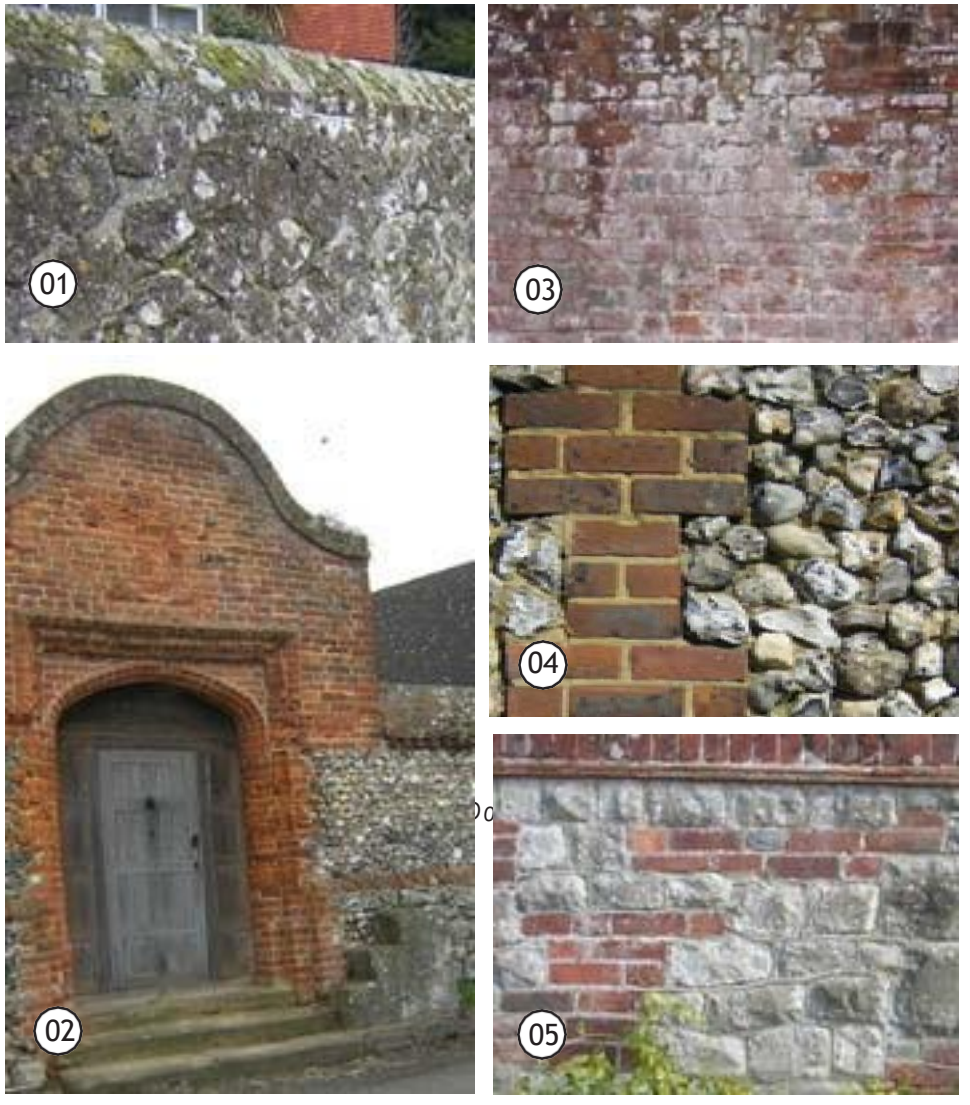
A wide range of historic streetscape features contribute to the present day landscape character of the Kent Downs and have considerable cultural heritage value. These include:

- Hedgerows: historic hedgerows are common traditional highway boundaries in the Kent Downs, emphasising the historic line of the road as well as providing enclosure, screening, and occasionally allowing views through farm gates towards the surrounding countryside;
- Commons and greens: these are also common historic landscape features in the Kent Downs, and are often associated with small settlements. Historic cottages are scattered around irregular shaped greens and commons, where there are often shared grazing rights.
- Wood banks: where a highway follows the boundary of ancient woodlands, this is often delineated by steep banks with characteristic polllarded oak, beech and hornbeam:
- Holloways: where roads and paths cross the steep chalk and greensand escarpments, combes and valley sides of the Kent Downs, they have become very sunken over time through wear and rainwater erosion. Many of these routes are very old - from the medieval period or earlier;
- Fencing and gates: in the countryside traditional chestnut post and cleft rail fencing is occasionally a local feature and simple historic parkland cast iron railing also sometimes occurs. Old field gates are also a feature;
- Walls: in the villages and small settlements, brick, flint, ragstone or sandstone walls are a distinctive feature, particularly associated with parkland estates and larger, historic manor house boundaries to roads;
- Fingerpost signage and village signs: black and white traditional fingerpost signage is common on the minor roads throughout the Kent Downs. These enhance local distinctiveness and contribute to the historic sense of place. A few old cast iron village signs are also

a feature;

- Road surfaces: very few traditional road surfaces remain, however granite kerbs, sandstone flags, and cobbles are historic features that contribute to the townscape of some of the towns and villages in the Kent Downs;
- Bridges and fords: those crossing the Darent, Stour and other rivers in the Kent Downs add much to the areas historic rural character. Some of the bridges are too narrow now to cope with present day traffic levels. Some medieval stone and brick bridges remain.

Traditional walls are often used as the boundary to lanes



01-05. Local brickwork examples in the Kent Downs

Specific Ecological Features and Value of Streets

Many country lanes, byways or footpaths in the Kent Downs have verges, hedgerows, ditches and ponds of considerable biodiversity value within their bounds. They often act as wildlife corridors for many species, particularly insects and small mammals. They provide a mosaic of habitats, with hedges and scrub providing nesting sites for farmland birds, and verges with a variety of sward heights providing an important habitat for insects and butterflies.

Particularly distinctive habitats include:

- Chalk grassland verges and tracks with a species rich chalk flora that can include orchids such as pyramidal, man and fragrant orchids, and unusual autumn gentian and autumn ladies tressies;
- Woodland verges characterised by primroses, violets and wood anemones;
- Ancient pollarded oak and hornbeam trees on woodland banks that are important for their diverse insect fauna;
- Heathland and acid grassland road verges;
- Some areas of these distinctive habitats have been specially designated as Roadside Nature Reserves (RNRs).

New hedgerow planting

A classic holloway; the road becomes sunken over time through wear and rainwater erosion

A chalk grassland habitat along the Dover coastline

2.2 Loss of Streetscape Distinctiveness and Character

The character of the Kent Downs is gradually being eroded in some areas, mainly as a result of three important trends:

- Firstly, traffic volumes have increased greatly in recent years and, together with inappropriate speeds, have resulted in real concerns over environmental impacts and safety;
- Secondly, the addition of infrastructure, usually on an ad-hoc basis, over a number of years, has led to further increases in traffic volumes and inappropriate speeds;
- Thirdly, minor "improvements" to highways are often a contributor to urbanisation in the Kent Downs.The creeping encroachment of kerbs, signs, road markings, barriers, gateway and other features are a significant threat to rural landscape character. Traffic signs, road markings and pedestrian crossings are too often designed from a standard palette, with little regard to the visual context of the street in which they are placed.

Adams (2005) summarises "The road layouts, and their accompanying signs, signals, barriers and road marking are not the work of any single planner; they are the cumulative results of numbers of unco-ordinated interventions."

The Department for Transport are about to review (as at June 2009) the Traffic Signs and General Directions Order. It is hoped that this will provide more flexibility to local authorities in the placement and design of signing. The DfT can also be consulted on exemptions to the TSGDO.

The Kent Downs are located close to existing major urban areas including Greater London, the Medway towns, Maidstone, Sevenoaks,Tonbridge and Dover.The increased pressure for new development exacerbates these difficulties - significant growth is planned for the Thames Gateway to the north and Ashford to the south; both are major growth areas within the Sustainable Communities Plan (ODPM, 2003). Maidstone and Dover are designated Growth Areas.

Within the Kent Downs there is further development pressure and together with the continued growth in commuting to and from AONB villages and other settlements, this is putting increasing pressure on the rural roads network.

A host of problems result - including dust, noise and vibration; light pollution; insensitive road improvements; increased danger and fear of danger for non-motorised road users (including pedestrians, cyclists and horse riders/ horse drivers); severance of communities and habitats; and increased congestion.The valued character of the villages, the rural highways and the tranquillity of the countryside is being diminished.

The policy response has largely been to further accommodate the increased number of vehicles - priority has been given to traffic, not people or village or streetscape design quality. A large part of the problem is one of process – fragmented and uncoordinated responsibilities mean that there is often no "champion" for ensuring that the landscape impact of highway schemes is given sufficient consideration.

The network of rural roads in the Kent Downs should reflect the diversity of the landscape within which they sit. They can and should contribute to the special quality of the Kent rural environment. The country road was once part of the distinctive part of the AONB, but seemingly this is steadily being lost. Local styles of verges, hedges, walls, signposts and other features, such as appropriate road widths and alignments, can however act as an important contributor to rural character if designed well.

CABE and ODPM (2002) suggest that "Streets are essential components in the urban [and rural] fabric, they are places in themselves, they are the most immediate part of the public realm and we encounter them every day."

The way we manage our network of rural highways and local village centres is therefore of huge importance - it has implications for residents, our communities, employers and employees, visitors, and the environment itself. It is, of course, essential that we ensure the safety of all highway users in the Kent Downs. It is equally important however that we improve the local streetscape and that we minimise and reduce the poor examples of highway engineering.

Giving more priority to people

The Common Myths

1. The only way to tackle speeding traffic is to have more signs, tighter rules and more enforcement.
   Response: Research and practice, both in the UK and abroad, suggests that fewer signs and clutter allow social and cultural constraints to come to the forefront and can be very effective in reducing speeds. Many drivers can become more socially interactive and use eye contact to avoid collisions with other vehicles, cyclists and pedestrians.

2. Guardrails are essential to improve pedestrian safety
   Response: Barriers between pedestrians and traffic can encourage higher speeds and generate a false sense of security. They reduce visibility for children and people in wheelchairs and inconvenience pedestrians. There is little evidence to suggest they improve safety in the long-term.

3. We have the safest streets in Europe.
   Response: Kent has been relatively successful in reducing casualties for drivers and car passengers. But this has possibly been at a cost to other street users. Non car users, including pedestrians and cyclists, and particularly children, may have withdrawn from using the streets. Well-designed streets should mean safer travel for all.

4. The only way to control parking is to use lining and signs.
   Response: There are more creative ways to designate parking bays including, where applicable, avoiding the use of yellow lines. Some towns in the UK have already adopted the simple principle, already widely used in mainland Europe, to identify where you can park, rather than where you cannot. Yellow lines are not always necessary, especially where their use takes away from the quality of the local environment. Where used, they need be no wider than 50 mm.

5. White centre line markings are necessary on all but minor roads to help prevent collisions.
   Response: Evidence shows that centre lines increase traffic speed. They also reduce driver awareness of the surrounding activity by drawing the eyes towards the far distance.

6. Standardised road signs and markings are essential.
   Response: Standardised signs may be appropriate on trunk roads and motorways. In built up areas and in villages or towns, they often have little effect on driver behaviour. Legible streets with their own distinctive identity and sense of place achieve safety through enhancing driver concentration.

7. Unmarked objects in the middle of streets are a hazard to traffic.
   Response: Statues, fountains, trees and other landmarks can enhance road safety by emphasising the unique identity of each place and forging a psychological link between the driver and his or her surroundings.

8. Traffic lights are essential for road safety and reducing congestion at busy junctions.
   Response: Traffic lights are only necessary where streets are designed for vehicle speeds above 30 mph. They do not necessarily reduce accidents. Uncontrolled junctions can encourage lower speeds and greater caution, and can reduce delays to vehicles and pedestrians. Across Europe, many traffic lights are being removed at busy intersections with positive results.

(Based on English Heritage, Save Our Streets, 2004)

Signing and road marking dominates the streetscene

2.3 The Current Policy Framework

National guidance for improving the design of streets and lanes in rural areas is fragmented to say the least. In the absence of other more suitable documents, design guidance intended for Trunk Roads (the 'Design Manual for Roads and Bridges', DMRB) or residential estate roads (the 'Manual for Streets'; and its forerunner 'Design Bulletin 32', DB32) has been used and is generally inappropriate for the context.

The gestation for the Manual for Streets (published March 2006) has been lengthy; evolving from 'Places, Streets and Movement' (DETR, 1998), and 'Better Streets, Better Places' (DfT, 2003). However the document has been influential in bringing together the urban design and traffic engineering disciplines. 'Link and Place' (Jones, Boujenko and Marshall, 2008) has also being published, providing a basis for analysing the role of the transport 'link' within the 'place'. Much of this work has had an urban and/or new development emphasis.This handbook translates this guidance into the rural context, with a particular focus on the Kent Downs.

Within Kent there are also a number of useful design guidance documents. The Kent Design Guide (Kent Design Initiative and KCC, 2006) considers the value of urban design; the urban design process, from appraisal to layout and movement issues and public realm detailing. Specific planning guidance is included in the South East Plan (SERA, 2009) and various local development frameworks. The Kent Local Transport Plan (KCC, 2006) advises on transport strategy for the county; and some very interesting initiatives are being promoted in Ashford – with a re-working of the town's ring road to two-way working and some utilisation of shared spaces.

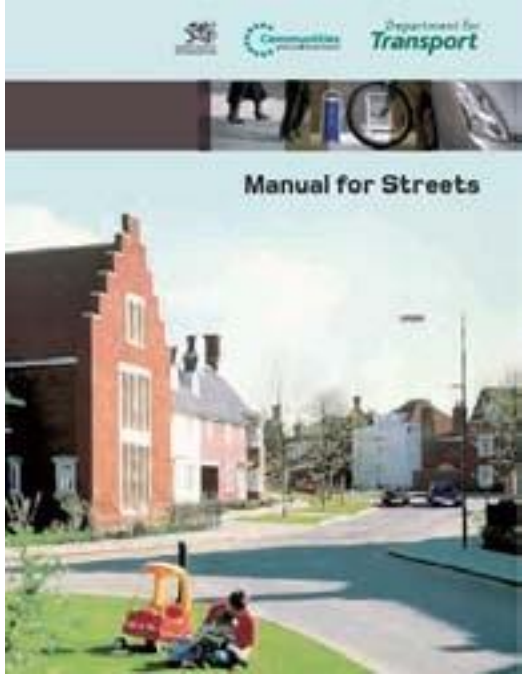
Guidance is now seeking to improve the quality of "the place"

Streetscape Policy Guidance Summary		
Author and Date	**Document**	**Commentary**
National Policy Guidance		
DCLG, 2007	PPS1 Planning and Climate Change Supplement	Restates the role of planning in helping to promote sustainable travel patterns.
DfT, 2007	Towards a Sustainable Transport System	Seeks to reduce transport carbon dioxide emissions, promote travel modes beneficial to health, greater equality of transport opportunity.
DCLG. 2006	PPS3 Housing	Places, streets and spaces should meet the needs of people, be attractive, have their own distinctive identity, and positively improve local character. This does not mean that new development should replicate its surroundings. The key consideration should be whether a development positively improves the character and environmental quality of an area.
ODPM, 2004	PPS7 Sustainable Development in Rural Areas	Development should respect and where possible enhance local distinctiveness and the intrinsic qualities of the countryside.
DETR, 2001	PPG13 Transport	The physical form and qualities of a place are shaped by the way it is used and the way people and vehicles move through it. Places that work well are designed to be used safely and securely by all in the community.
Accompanying Design Guidance/Good Practice Guides		
DfT, 2007	Manual for Streets (MfS)	The Manual replaces DB32 and 'Places, Streets and Movement'. The Manual gives guidance on residential streets only. It includes guidance on junction geometries, roadwidths and identifies the scope for innovative standards that differ from established highway designs.
ODPM and DfT, 2003	Better Streets, Better Places	Addresses the difficulties faced in achieving attractive, people-focused streets. It recommends new technical guidance for streets, motivating people to create better streets and places, and processes that facilitate this (some of the issues raised in this document evolved into Manual for Streets)
DTLR and NRPF, 2002	Going to Town: Improving Town Centre Access	A companion guide to PPG6 and PPS6. Develops principles for improved access to town centres and outlines case studies exploring these issues.
ODPM and CABE, 2002	Paving the Way	Seeks to achieve clean, safe and attractive streets. Highlights barriers in the institutional, management and policy framework which inhibit the creation of streets for multiple users.
DTLR and CABE, 2000	By Design. Urban Design in the Planning Process – Towards Better Practice	The guide aims to encourage better design and to stimulate thinking about urban design. Promotes movement by pedestrians and cyclists within residential developments.
DETR, 1998	Places, Streets and Movement (Superseded by MfS, 2007)	A companion guide to DB32, giving examples of "innovative" design approaches which still meet prescribed standards. Advises designers on how they may use the advice in DB32 more creatively and flexibly to achieve better quality urban design.
Highways Agency, 1997	Design Manual for Roads and Bridges	Provides information on the design and assessment of Trunk Roads. Includes all current advice notes and sets a standard of practice for the development of Trunk Roads and motorways. Where the DMRB is used for local road schemes it is for the local highway authority to decide its applicability.
DETR, 1992	Design Bulletin 32 (DB32) (Superseded by MfS, 2007)	Gives guidance on a range of factors that should be incorporated into design considerations – whilst the need for accommodating pedestrians and cyclists in designs is acknowledged, there is no prioritisation over the movement of vehicles.

2.4 A New Approach: Context Sensitive Design and Shared Space

The discipline of streetscape design has a rich history and has changed markedly in emphasis over the years. Alker Tripp and then Colin Buchanan (Traffic in Towns, 1963) developed much of the early influential thinking – based on a modernist vision - with separate spaces for pedestrians and motor vehicles. Much of this work was premised on understanding and accommodating the huge projected growth in traffic. A "safe" environment was perceived as requiring segregation between the car, pedestrians and other activities; meaning pedestrian decks and flyovers and precincts. The result was focused therefore on facilitating increased traffic flow. These principles became the prevailing norm in traffic engineering practice and continue, in the main, to this day.

A marked change in direction was provided by the tradition of traffic calming - which has developed over the last 30 years in mainland Europe. Stemming from design practice in residential streets in the Netherlands, the traffic calming movement has been reinvigorated by the recent urban design and renaissance agendas in the UK and continental Europe, New Urbanism in the USA, and more general moves towards sustainable development. The woonerf principle for shared priority in residential areas has become particularly influential. Early practitioners in the UK, such as Carmen Hass-Klau and Tim Pharoah, "imported" many of these principles and interpreted them for the UK context. "Context sensitive design" and "shared space" practice has further evolved from these early experiments in traffic calming. The latter in particular emphasises a greater understanding of behavioural and psychological issues - considering how people and traffic interact in spaces. Hans Monderman in the Netherlands, David Engwicht in Australia, Michel Deronzier in France and Ben Hamilton-Baillie in the UK have been leading proponents of this shared space approach. [1]



1 For further reading see Monderman and Hamilton-Baillie (2005) Shared Space: Room for Everyone; English Heritage (2005) Streets for All - South East/South West/London; and/or English Heritage (2004) Save Our Streets.

Shared Space

Shared space is a traffic engineering philosophy pioneered by the Dutch traffic engineer Hans Monderman, and has been promoted in the UK by streetscape design experts such as Ben Hamilton-Baillie, and in Australia by David Engwicht.

The general philosophy is that safety, traffic, community severance and economic vitality can be effectively tackled in streets and other public spaces if they are designed and managed to allow traffic to be fully integrated with other human activity, and not separated from it. An important characteristic of a shared space street is the absence of traditional road markings, signs, traffic signals and the distinction between “road” and “pavement”. User behaviour becomes influenced and controlled by social interaction rather than by regulation.

Much of the theoretical background behind the shared space approach has been explained by the work of Professor John Adams - covering definitions of risk and compensation and the withdrawal from street life. The main argument is somewhat counter-intuitive: that tolerance of risk is a necessary stimulus for us to be able to understand, enjoy and deal with our urban environment. The implication for highway and streetscape design is profound – a greater perception of risk (reduced segregation) means that street users will use and enjoy the street environment to a greater degree.The shared space approach, and other traffic calming techniques, are very relevant to streetscape design in the Kent Downs AONB, particularly in the rural villages and towns, but also along many of the lanes with special landscape character. Highway design should always respect the local context. Such approaches are gaining more support from the UK Department for Transport and are consistent with the ethos of the new Manual for Streets.

Classic shared space design in Skvallertorget, Sweden

Important lessons can be drawn from the projects in the Netherlands, France, Denmark and elsewhere. Hans Monderman has pioneered many of these innovative projects, in villages and towns in Friesland and Northern Holland, such as Drachten, Groningen and Oosterwolde, and also in Chambery, France. Shared space helps to generate public spaces where traffic, social and other spatial functions can exist together – vehicles, cycles and pedestrians share space; where all can move together at slow speeds and interact. Social space is therefore designed in a manner such that we do not conceive space as "traffic space", but as "people space" – a space where the social functions of the public space take priority.

These principles can be applied to rural lanes.The design of a lane can be conceived as an integral part of the area through which it passes. A person travelling through is aware that they are "a guest" because of the layout of the space, and in response they adjust their travel behaviour to the social requirements of the context.

The contextual design and shared space philosophy is gaining greater credence across Europe and North America. A number of towns, cities and rural centres in the UK are beginning to interpret streetscape design from this different perspective. Examples, with different forms of intervention, include: Ashford (Kent), High Street Kensington, Exhibition Road in Kensington (aligned with the Science, Natural History and Victoria &Albert Museums and Imperial College) and Trafalgar Square in London; Queen Square in Bristol; Shrewsbury and Fakenham town centres; Stiffkey and Starston (both Norfolk) and Wellow (Somerset) are all premised on "winning back" public space from traffic and reallocating it to pedestrians, cyclists and social activities.The research document "Reclaiming our Rural Highways" (Halcrow, 2005) explores some of these concepts in a rural context, and particularly in the Dorset AONB.

This evolving practice has direct relevance for streetscape design in the Kent Downs. For example:

- Travel behaviour on roads with a public character is influenced more by using the surrounding environment than by the usual tools of the traffic engineering professions (such as signing). A balance will need to be achieved in all scheme designs between transport "link" and "place" objectives;
- Speed of traffic is, to a great extent, determined by the degree of "psychological retreat" from roads and streets by residents and other participants. Reversing this retreat is critical to reconciling the multiple roles of streets and public spaces;
- Shared space allows public spaces to develop the existing information given by the space.Traffic engineering tools are used reticently;
- The character of the space - the context, history, morphology and landscape - is thus critical to use.There is a distinction made between casualty reduction and increased safety;
- Highway engineering evolves into a more holistic view of streetscape design. Highway engineers' responsibility becomes the wider road users responsibility. There is a move from the use of standards towards context sensitive design, and from the safety audit to the wider design audit;
- There is a role for experimentation and monitoring of new schemes rather than an assumption concerning the effectiveness of standard measures (which are often based on little evidence);
- And, importantly, streetscape design is premised on the promotion of "quality of life" or "civility" rather than traffic throughput and volume.

Any new street or lane design should ensure that vulnerable people – children, older people and disabled people – can cross safely and independently. All user groups should be consulted in the development of new schemes, including those representing blind and partially sighted people.

Excellent design examples of rural streets and lanes are scarce in the UK. However, practice is evolving quickly and there are some good examples where the built environment is designed to slow traffic without the need for signing or clutter, or where the quality of the streetscape or lanescape is integral to the quality of the landscape.

01. Chilham streetscapes, Kent
02. Rural lanes, Dorset
03. Fingerposts, Postling, Kent
04. Emsworth, Hampshire

(Further UK examples are shown in Chapter 3 related to particular design principles)


01


02


03

01-04. Innovative streetscape design. Ashford (Kent)

05. Dorset (retained Roman Ridgeway)
06-08. Cirencester

There are excellent examples of contextual design to be found in continental Europe: human response and eye contact are used to achieve greater social interaction and road safety.

01. and 02. Makkinga, the Netherlands
03. Allerod, Denmark
04.West Wartier, Delft, the Netherlands

05. and 06. A Woonerf, Rijsvijk, the Netherlands
07. Hennef,Westphalia, Germany
08. San Sebastian, Spain

Litigation Issues

A key concern with much of the evolving practice is the potential for litigation claims against local authorities. A recent important publication covering these issues in the UK has been authored by the Institute of Civil Engineers and UK Roads Board (Highway Risk and Liability Claims, ICE, 2005). Appendix C to the Highway Maintenance Code of Practice contains a new chapter on streetscape design. The replacement to the decade-old Kindred Associations guidance on liability claims encourages innovative designs that, for example, minimise signs, lines and kerbs, by providing evidence of common law decisions that illustrate how schemes would be difficult to challenge.

The document helps counter the difficulty for local authorities in designing experimental schemes where they are concerned with increasing the risk of expensive liability claims. The document highlights the legal emphasis placed on the highway user for their own safety. The most important case law arises from Gorringe:

Lord Scott (para 76, Gorringe v Calderdale Council, 2004) "The overriding imperative is that those who drive on the public highways do so in a manner and at a speed which is safe having regard to such matters as the nature of the road, the weather conditions and the traffic conditions. Drivers are first and foremost themselves responsible for their own safety."

A more detailed review of potential litigation issues is found in Annex 3.

The next section of this handbook draws on the special characteristics of the Kent Downs to develop a set of principles for streetscape design specific to the Kent Downs.

03

Fixing Rural Streets and Lanes: AONB Wide Design Principles

3.1 General Principles

This handbook is premised on improving the design of rural streets and lanes with an overall objective of contributing to the enhanced quality of life and civility of the Kent Downs. Below this is elaborated in terms of:

- Planning for, and giving greater priority to, pedestrians and cyclists;
- De-cluttering and co-ordinated design;
- Managing traffic;
- Road surfaces, paving and edge treatments;
- Street furniture;
- Signing;
- Landscape and ecological features;
- Historic and modern features

These principles are drawn from a distillation of previous work in this area, consideration of evolving practice on the ground and discussion with transport planners, engineers and landscape designers in Kent.

Wherever possible we illustrate the text with good (and bad) practice photos and case studies. A number of general issues are worth considering from the start:

- Local distinctiveness should always be respected, drawn upon and enhanced wherever possible. Distinctiveness is to a large extent influenced by the underlying local geology of an area, as well as by history, economics and communications;
- Many of the lanes and routes within the Kent Downs already possess physical and historic built and landscape features which limit speed and influence driver behaviour. These features should be

used to help de-lineate and articulate the streetscape - they may not need additional traffic management measures, and at least can be used as references for traffic management schemes;

- Less is usually more. Nothing should be placed in the street unless there is a clear benefit. Much of the existing street furniture in the Kent Downs, particularly signs and poles and markings, is unnecessary; it certainly has little strategic co-ordination, and is usually a result of ad-hoc changes over time. The existence of street furniture should be "clutter audited" and reduced to a minimum, with redundant items removed;
- Investing in quality solutions that will endure and offer best value for money is important. If resources are inadequate, it is wise to do less, to a better and higher standard. A quality, minimalist approach may not cost more, and may cost less than an "over engineered" approach;
- What will be more resource intensive, however, is the process of streetscape design:
- We can no longer work in our single-discipline "silos". Wide ranging consultation, participation, co-operation and input from a range of stakeholders, the public, interest groups and local authority officers - facilitated by urban and landscape designers, traffic engineers and transport planners - is important to guarantee quality in design, acceptance and a successful implementation of schemes.
- Good design should not be an optional extra; it should be common working practice.

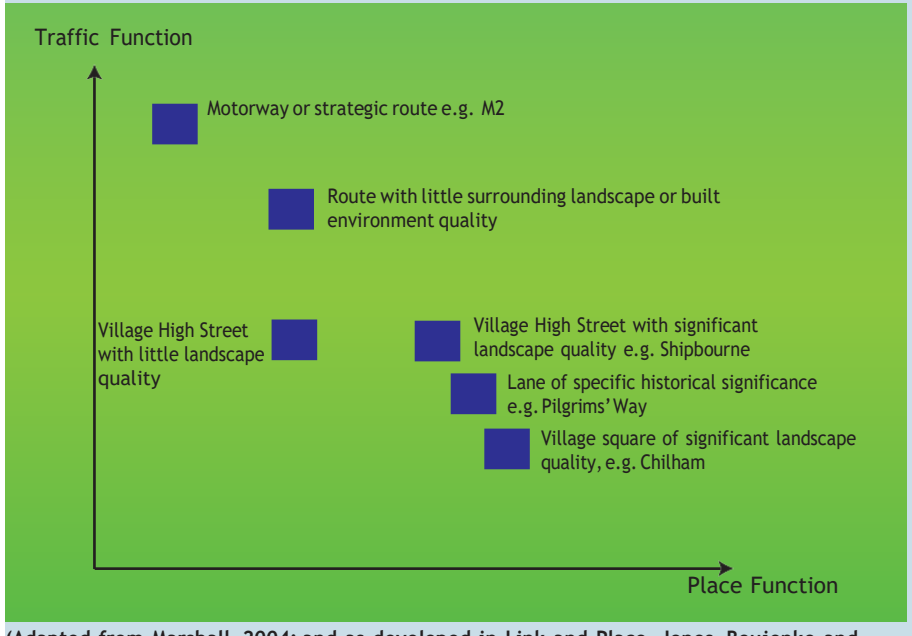
The case studies (Section 4) and toolkit (Section 5) illustrate how the design principles can be used in practice.

Appreciating and Enhancing Rural Streets and Lanes

The many lanes and routes in the Kent Downs are an intrinsic part of the wider Area of Outstanding Natural Beauty. They contribute to the special character of the landscape, and in places are the central feature - the Pilgrims' Way, for example, contributes hugely to the aesthetics of the Kemsing and Hollingbourne Vales.

This handbook attempts to draw on and enhance these special characteristics of the Kent Lanes. Wherever the streetscape contributes to the quality of a village or hamlet, or the countryside, we believe the "lanescape" should be appreciated and enhanced in its own right.

In these areas, streetscape designs and traffic management schemes should particularly be targeted at enhancing the intrinsic quality of the Kent Downs. This means that the design of a route will need to enhance the local landscape character and reflect its immediate context. Traffic throughput, for example, might become a secondary objective - traffic will be slowed, pedestrians and cyclists given priority, and contextual design or shared space techniques used to improve the character of the area.



(Adapted from Marshall, 2004; and as developed in Link and Place, Jones, Boujenko and Marshall, 2008)

The lane contributes to the distinctiveness of the rural place (Shipbourne)

3.2 Planning for Pedestrians, Cyclists and Horseriders

In rural areas walking and cycling are essential modes of transport, including for those without access to a car. Walking and cycling for recreation are important activities in the countryside. High numbers of pedestrians and cyclists add to the vitality of the Kent Downs, and are important for the economy and tourism. Horseriding is also a popular leisure activity in the Kent Downs.These modes of travel also have the least adverse environmental impacts and support efforts to improve the rural and built environment fabric.

The rural lanes can offer a very pleasant travel experience for walkers and cyclists - however fear and perceived fear from speeding traffic is a large and growing problem. It can lead to vulnerable users "withdrawing" from use of the street. Although this might lead us to believe that the streets are becoming safer, this may be a misconception, the number of pedestrian and cycle casualties might reduce, but this only reflects the loss of activity. If a critical mass of activity is reached, the lanes can become much safer for walking and cycling.This handbook therefore aims to tap into the potentially large latent demand for walking, riding and cycling in the Kent Downs.

Continental Europe provides many of the best practice examples of pedestrian and cycle network and facility design, however a number of excellent schemes are now being implemented in the UK.This handbook draws on much of this excellence in practice. New foot and cycle paths should build on, and wherever possible link into, existing initiatives such as the National Cycle Network, Safe Routes to Schools and the Public Rights of Way Network.

Key principles:

- Increasing the use of walking, cycling and horseriding will help enhance our public spaces, increase social interactions, improve the health of residents and visitors, and generally enhance the civility of life in the Kent Downs;

- Market squares and main streets within villages should be made attractive to pedestrians and cyclists by improved design. Those that are overly dominated by traffic and parked cars should be redesigned as shared space;
- Pedestrian and cycle routes should form part of a coherent and continuous network. They should follow natural desire lines and take people where they want to go without major detours or restrictive physical barriers. Modest investment can make a huge difference in terms of pedestrian and cycling improvements. The "5Cs" of improved route quality are shown below - all new investment should follow these principles;

Improving Pedestrian and Cycle Route Quality: the "Five Cs"

Connected: good pedestrian and cycle routes link the places where people want to go and form a network. Routes should connect villages and key destinations such as stations, schools, workplaces, community centres and leisure destinations;
Convenient: routes should be direct and designed for the convenience of those on foot or bicycle. Direct routes follow desire lines, with easy-to-use crossings. This applies to all users, including those with mobility difficulties;
Comfortable: walking and cycling should be enjoyable, with good quality footways and cycleways. Routes should be attractively designed in landscape terms, with adequate widths and few obstructions. The noise and fumes of motor traffic should be reduced, as far as is possible, from the pedestrians and cyclist environment;
Convivial: public spaces should be pleasant to use, attractive and safe. Social interaction between people should be encouraged. Routes should be safe and inviting, provide variety and diversity of activity and continuous interest at ground level;
Conspicuous: routes should be clear and legible, if necessary using signposting and waymarking. Street names should be used. Clutter should however be avoided. Legible routes are easy to find and follow, with surface treatments and signs used to guide pedestrians.

(Based on DETR, Encouraging Walking, 2000)

- Where new rural footpaths and cyclepaths are provided, the use of locally-derived, subtle-coloured surface materials are the most appropriate solutions. Coloured surfaces should be avoided;
- Cycle parking is a critical part of the story - improved provision should be made for cycle parking in the villages and at railway stations in and adjacent to the Kent Downs;
- The most effective approaches for improving walking and cycling combine improvements to the environment and facilities with carefully targeted information about travel choices, health benefits and recreation opportunities. This handbook should be read and implemented alongside other behavioural change initiatives, targeted at reducing motorised travel and increased walking and cycling. Personalised travel planning in particular could help here;
- The by-products of many rural footway and cycle schemes - widened and straightened roads, standard kerbing types and excessive white lining - should all be avoided. These features are likely to lead to the reverse outcome of what was intended: increased vehicle speeds, a suburbanised environment and a poorer pedestrian and cycle environment;
- The public realm should be accessible to all without resulting in the street becoming segregated. Ramps should be related to the wider context, whilst tactile paving should be well detailed and executed to avoid awkward junctions and relationships with the surrounding streetscape. Colours should co-ordinate with adjacent materials.
- Special measures for horseriders on rural roads are far and few between in Kent.There is likely to be demand in the Kent Downs for facilities such as Pegasus crossings, which are specially built crossings for horses and horseriders, usually with a waiting area and push buttons at horserider height. An assessment should be made of any demand and provision made accordingly.

01. Quality in everyday pedestrian provision
02-04. Cycle lanes need to be continuous; provision for leisure purposes can lead to cycling for other trip types (03 Sustrans)

01. Open access to the countryside; a farm walk (Hollingbourne)
02. An easy access gate on the Public Right of Way Network (PROW)

The National Cycle Route Network

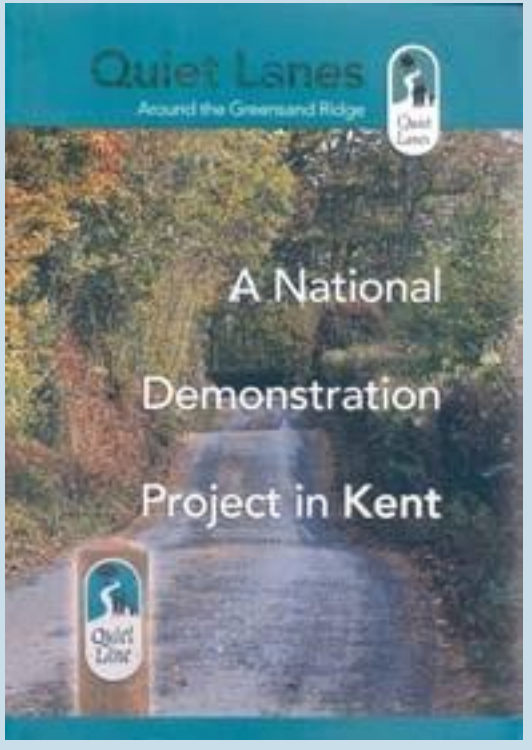
The National Cycle Network (NCN) has been voted the most popular of all the Millennium projects. Co-ordinated by Sustrans (see http://www.sustrans.org.uk), the NCN creates a network across the UK of long distance routes for cyclists and walkers – and is used for journeys of all kinds. 10,000 miles of the NCN have been completed by the beginning of 2006. 316 miles of NCN have been completed within Kent, including the major routes along the Kent Coast and the Garden of England Route.

The NCN consists of both on-road and traffic-free sections, often making use of disused railways and canal towpaths. Local routes often link into the NCN. Many of the routes are attractively designed, including the use of sculptures.

NCN Route 7; Jolly Drover's Maze (Sustrans)

Quiet Lanes in Kent

The Countryside Agency pioneered the Quiet Lanes initiative - which assessed the roles of minor roads and sought to adapt them for safer use by walkers, cyclists, horseriders and motorised vehicles, whilst still maintaining their essential character. The initiative includes community involvement and encourages changes in user behaviour, area-wide direction signing strategies to re-route traffic, and network signing demarking the existence of Quiet Lanes. Quiet Lanes therefore seek to strategically manage traffic on rural roads. A Quiet Lanes demonstration project was developed in Kent around the Greensand Ridge, and was launched in 2001. Many of the traditional traffic management measures such as speed limits, speed humps and chicanes were rejected due to the adverse impact on the character of the lanes. A number of small-scale traffic management measures were introduced, including fingerpost signing, rights of way improvements and footway widening.



Case Study: Cirencester and Lewes, East Sussex

Cirencester and Lewes in East Sussex have adopted the use of paving that reflects the character of the town and the historic buildings. The narrowing of the roads, widening of pavements and the replacement of intrusive and aggressive road markings with cobbled stones naturally calms the speed at which traffic moves and contributes to a safer and friendly environment. The low rise kerbs create less segregation between pedestrian and vehicle areas and the use of cobbles and tactile paving highlights safe crossings for walkers, buggies, the disabled and elderly people.

3.3 De-cluttering and Co-ordinated Design

The potential negative cumulative impact of small changes on the highway has been recognised for many years, and the presence of "clutter" is a growing problem in the Kent Downs. Over the years, it has proved all too easy to over design for safety, and to introduce and gradually accumulate clutter through periodic reviews and introductions of signing and street furniture. Nationally, two campaigns have been launched (both in 2004) to highlight the issues: "Save our Streets" by English Heritage and "The Clutter Challenge" by the Campaign to Protect Rural England (CPRE).

More effective, co-ordinated streetscape design entails minimising sign and street furniture clutter. Road safety does not need to be compromised, and indeed can be enhanced with a rationalised approach. This handbook suggests that a distinctive interpretation of each particular space is required, with streetscape design encouraging drivers, pedestrians and cyclists to engage with other users of space, the circumstances and the context. White lines, road markings, standard signs and speed cameras and traffic control systems play a lesser role. Many of the streets in Chilham, for example, provide good practice examples for the rest of the Kent Downs. In most parts of the village, clutter is kept to a minimum.

Elsewhere, bright colours, geometric shapes, straight lines, signage, kerbing, guardrailing, lighting and traffic calming can all adversely affect the quality of the landscape in the Kent Downs. Many cluttered landscapes and streetscapes can be dramatically improved.

Clutter can be dealt with in three ways: by removing it, by reducing the quantity of items through amalgamation and multi-functionality, and by reducing its obtrusiveness through improved design. Examples of using clutter audits can be found in Northumberland, Norfolk Coast and Dorset.

Key principles:

- The design of street furniture should be simple, designed for the location, accessible to all users, safe, suitable for those with special needs, be aesthetically pleasing, functional and easily understood. Traffic management and signing initiatives should be considered as part of an overall design solution, as should drainage and maintenance;
- Chainlink, weldmesh, close board and other fencing types normally associated with urban are not appropriate in the Kent Downs. Local styles of timber and iron fence and gate are more suitable;
- Advertising, including boards placed on trailers in fields adjacent to major roads, can be particularly intrusive in the countryside. Mostly these require consent from the local planning authority and enforcement action should be taken against illegal advertisements.

Who is this clutter for?

01-03. Excessive signage and street furniture in the Kent Downs

01,02.The deliberate use of ambiguity, through the removal of signs and road markings, has actually led to a reduction in casualty figures in parts of Holland, Denmark and Sweden.

Case Study: High Street Kensington, London

High Street Kensington in London provides possibly the most well known streetscape design example in the UK. The scheme includes the removal of pedestrian barriers, minimised road markings, simplified carriageways and pedestrian crossings and the introduction of high quality street furniture. A streetscape manual has been produced to disseminate the successful practices adopted (RBKC, 2004).

Although very much an urban-based scheme, lessons can be drawn for the Kent Downs in terms of road space reallocation to pedestrians and cyclists, de-cluttering and liability issues.The scheme was implemented in 2002 and involved the removal of barriers and signage and a much improved, high quality streetscape. The premise behind much of the work was to challenge legal assumptions concerning highway design, e.g. in the event of an accident between a pedestrian or cyclist and a vehicle. From the financial angle, the elimination of clutter can actually result in cost savings as a result of reduced infrastructure and/or maintenance costs. Following the success of the High Street Kensington scheme, Exhibition Road and Sloane Square (both in London) are to be redesigned on shared space principles.

Case Study: Lavenham, Suffolk

Classic market square with simple streetscape in Lavenham. Clutter is kept to a minimum and the usual traffic engineering 'demarcation' deliberately not used. For example there are few white or yellow lines and no use of guardrailing.

Case Study: Calderwood, Edinburgh

Many good streetscape improvements are simple in nature. Less can be more.

01. Calderwood before
02. A narrowing of the route with natural materials helps reduce speed
03. A similiar approach is used past the old house, with a shared space adjacent to the entrance
04. The standard highway design approach with signing and lining. Not supportive of the local landscape and built quality

Ben Hamilton-Baillie Associates

3.4 Managing Traffic

As noted previously, traffic growth and increased traffic volume is at the heart of the problems faced in streetscape design. Accommodating increased traffic volumes is becoming increasingly difficult. In addition, many previous rural transport schemes have failed to recognise the complexities found in successfully translating urban engineering into a rural context.

Traffic calming measures should be fitted sensitively into the street scene as though they were the part of the original layout of the area.There may be a difficult balance here – some traffic management designs can be difficult to integrate into an older streetscape. There are no standard solutions; the need for careful thought in streetscape design certainly remains.
Each feature or device should relate in its design and materials to the overall townscape or landscape to ensure that traffic calming measures reinforce rather than detract from local character.

Key principles:

- Traffic management schemes can be multi-functional; solving more than one existing transport issue and also conserving and enhancing the appearance of the place which they affect;
- The characteristic physical features of rural lanes – such as trees, ditches, hedges and hedgebanks – and the typical winding horizontal and vertical alignment of the lanes themselves naturally calm vehicle traffic speeds. Such features are elements to build upon rather than removed and replaced with standard highway "improvements". For example, there should be a presumption to retain strong bends and curves on minor rural routes, rather than route straightening which might have traditionally been perceived as favourable to increase traffic throughput;
- Similarly, features which either border rural lanes (such as walls, post and rail fencing, metal parkland railings, timber bollards, gatehouses, tollhouses and lodges) or which vehicles travel over (including cobbles, setts and humpbacked bridges) can naturally calm traffic speeds and affect driver behaviour. Bollards and other street furniture should only be used if they are essential. The design of new schemes should use the existing physical topography, vegetation, buildings and other structures, so that they appear as an integral part of the landscape and the historic road pattern. Schemes should reinforce local identity by careful choice of detailing, materials and street furniture – contextual design is thus predominant;
- Design responses should not be overly large or garish or place undue reliance on signs, lining or lighting. Schemes should wherever possible limit air, noise and light pollution. White lining is generally not required in rural areas and its introduction should be resisted, particularly in village centres or along attractive rural lanes, and consideration given to removal. The use of strong colouring (e.g. red) surfacing is similarly discouraged. Subtle, buff colouring is usually preferable and will perform the same role in improving safety;
- Pedestrian guardrailing and fencing should be reduced to the absolute minimum and where possible removed entirely, especially where this inhibits pedestrians travelling along route desire lines.
- Courtesy crossings, where applicable, are a useful way of giving pedestrians subtle priority over vehicles at designated points within villages to ease crossing the road. Despite no legal pedestrian priority, vehicles often give way to pedestrians. They should be promoted and considered alongside more formal crossing arrangements;

- Carriageway narrowing (often back to historic widths), or grass strips along the centre of lanes, can slow traffic speeds and make walking and cycling more pleasant. Additional measures may include reinstating junction triangles and village greens and tightening rural junction radii;
- Any new access points off rural lanes should wherever possible retain trees, hedgerows and verges and replace as much lost planting as possible. Junction improvements should reduce the area of carriageway required and realign the road edge rather than use white hatching. Kerbing should be kept to a minimum to avoid "suburbanising" the local environment;
- Gateway features are a particular sub-set of traffic management measures, and can often be successfully used to mark the entrance into a village or town. They can be used to reduce vehicle speeds and have become increasingly common over the last few years. They tend to combine a village name sign, a speed limit sign and some traffic calming measures. Care should be taken not to over design gateways or introduce template designs;
- Traffic speeds on rural roads should be set according to the Department for Transport Circular 01/2006 "Setting Local Speed Limits".

The provision of parking spaces can have a large impact on the local environment. There are a number of options to reduce adverse impacts:

- Subtle road marking or surface treatments can be used to designate the spaces for parking cars, rather than the usual approach of yellow lining where cars are not allowed to park. Differently coloured paving can de-lineate parking spaces without the need for painted markings. A compromise approach is to use primrose coloured and narrow 50mm wide lining;
- Where parking takes place within village centres, efforts should be made to break up large expanses of tarmac with, for example, the subtle use of different paving materials or tree planting to enliven the streetscape;
- Rural car parks should relate well to the surrounding landscape and not lead to arbitrary or unnatural boundary edges or shapes. Small car parks are preferable and tree planting can be used to minimise the visual impact when viewed from the adjacent area. Use of gravel, crushed aggregates or grasscrete is preferable to tarmac to reduce the visual impact of car parks and facilitate drainage. Recycling facilities, which are often found in car parks, should be screened by planting wherever possible;
- Parked cars on the highway in villages can be a useful way of reducing traffic speeds and thought should be given to ensuring these are placed or permitted in a manner that brings the greatest benefit in terms of reduced speeds and careful driving through built-up areas.

01-02. Average practice: yellow and white lining is intrusive in areas of special character. Even examples outside schools can be designed more subtly (for example by using surface materials rather than lining)
03. Traffic calming features are often poorly thought out in terms of design

01-04. Poor gateway design in the Kent Downs - garish materials are inappropriate

01, 02.The built environment and landscape can be effective in naturally calming trafffic speeds (Chilham and Medway, Kent)

03. Courtesy crossings allow pedestrians to cross the road safely without the need for signs; subtle surface marking manages traffic and provides space for pedestrians (Blandford, Dorset)

Case Study: Poundbury, Dorchester

This recent settlement extension on the edge of Dorchester is often used as an exemplar of good streetscape design in new developments. Again lessons can be drawn for the Kent Downs. A mix of streets, squares, lanes, courtyards, mews and pedestrian streets are designed around a range of housing types, a village centre and a network of open spaces. New developments should be designed with the built form designed and placed before the street, with shared space designs used for the streetscape. Poundbury demonstrates that non-standard highway design can be applied successfully, and that presciptive standards need not dominate the finished development.

01-05. Quality in streetscape design and implementation

Case Study: Dorset - The Built Environment and Traffic Calming

The use of the road environment to naturally calm traffic and reduce vehicle speeds has been acheived in many new rural housing developments in Dorset by taking a creative approach to meeting local highway authority standards.Vehicle speeds are moderated by the winding road layout and forward visibility is reduced by the careful positioning of houses and other buildings. The street provides a social space for play. Particularly important is the concept that driving through a village centre should feel like being in an "outdoor room" or a "living space" in order to psychologically encourage drivers to slow down. In rural areas, lanes can utilise the design of the road edge as a visual speed control rather than the centre line. The positioning of buildings, trees and hedges along winding routes reduces speeds, this being more effective than a straighter, wider road with more signage and centre white lining.

Using the road environment to slow speeds (Portesham, Dorset)

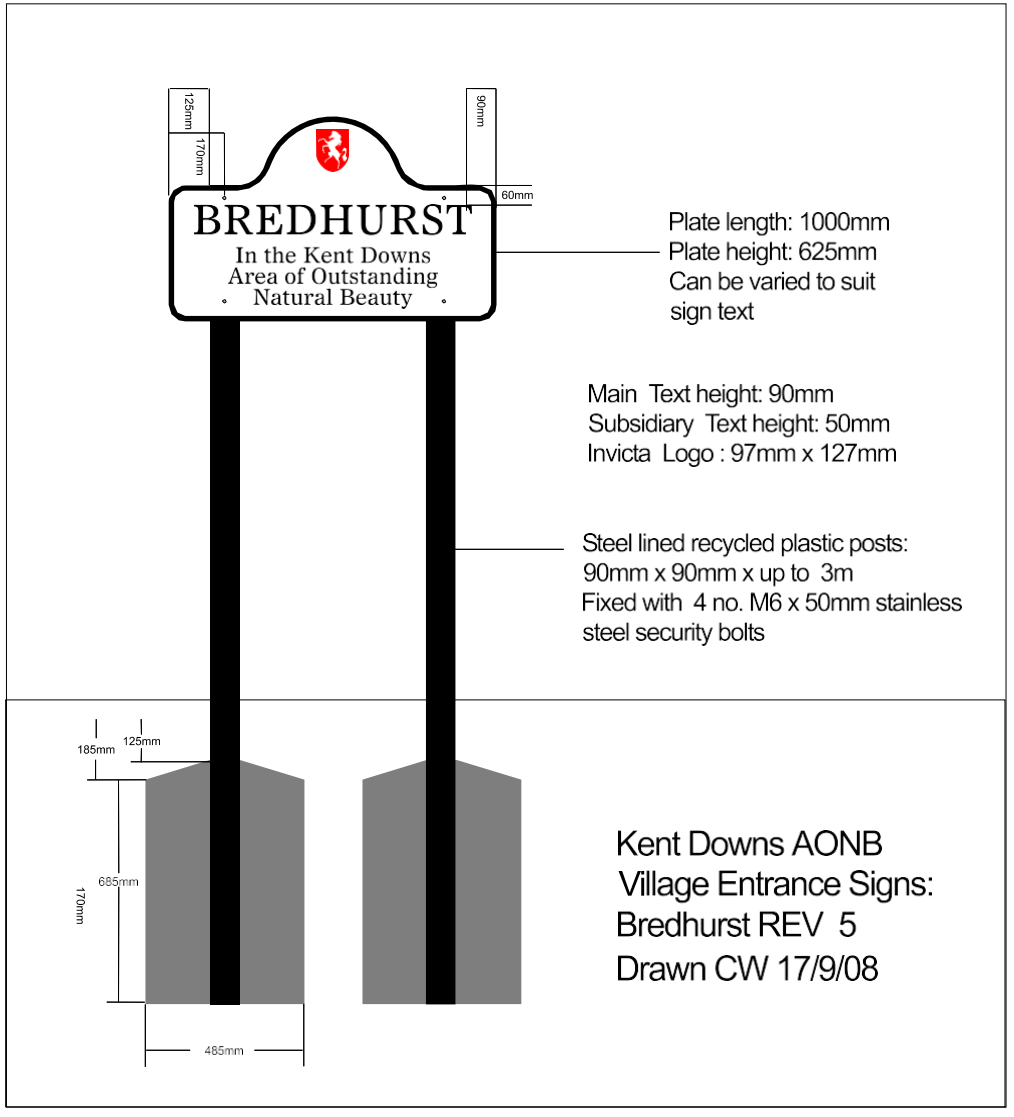
Case Study:West Kent Rural Lane Enhancements

The West Kent Rural Lane Enhancement Project tackles a number of issues (such as speed, lane and verge erosion and poor street furniture) and tailors individual solutions to streetscape design. Traditional solutions and their potential problems, e.g. the use of speed limits, are explored in workshops so that the logic behind new design approaches can be understood.

Examples of enhancement schemes developed include "thinning" of rural lanes to their original widths and retention of desired road widths by using log kerbing and passing places, and the re-ditching and re-banking of verges to prevent over-running by vehicles. Junction triangles have been reinstated and restored with granite setts, posts, log kerbing and topsoil top-ups to prevent over-running. Problems with safety auditing have been overcome with attention to detail in terms of careful location and design of new features.

Gateway Signing

The proposed new signing for gateways into villages and towns in the Kent Downs AONB.The design is a contemporary version of the historic cast signs, made from recycled plastic.They should only be used to replace existing flat panel aluminium signs.



3.5 Road Surfaces, Paving and Edge Treatments

Paving and surface materials define the "platform" of the built environment. The Kent Downs has a rich tradition on which to build – traditional paving materials and methods can continue to meet the practical and aesthetic requirements of streets and public spaces.

In many parts of the Kent Downs, before the advent of modern surface finishes, roads comprised compacted soil and a mixture of gravel, stone and flint. Subsequently, hard surfacing for roads and footways was selected according to the location and function of space and the availability of materials. This tradition should be upheld wherever possible.

The choice of paving materials can make the difference between an interesting and distinctive place or standardisation and anonymity. Paving can, amongst other things, influence how and where people drive, and influence the routes that pedestrians take across spaces. Practice in mainland Europe is illuminating.The province of Freisland in the Netherlands has a programme to remove all road markings from towns and villages, along with signs and other traffic control systems. White lines tend to draw the eye of the driver to the distance; reducing the awareness of the immediate surroundings (see Annex 4 for a review of practice in streetscape design in Freisland and elsewhere).

Makkinga was the first village to be redesigned in Freisland. In place of white lines and signs, the historical development of the settlement, morphology, pedestrian desire lines and context - the foundations for good urban design - are used and emphasised in surface treatment and street design. Gateways into town are marked by distinct transitions; road markings vanish and road widths reduce; and surface materials change to reflect the distinct geology and history of the place.

Cost issues are of course important. Good quality materials do not necessarily imply a higher cost, as long as designs are kept simple. Capital and maintenance costs can all be kept to low levels with simple designs.

Key principles:

- Ground surfaces should be related to their surrounding streetscape context. Traditional materials are aesthetically pleasing and historically significant. Local sourced materials also benefit local economies and the environment. Historic paving and kerbs, coalholes and Victorian manhole covers should be retained in the villages and urban areas;
- New highway works, including new footways, can draw upon a wide palette of non-standard paving materials, including hoggin, ragstone, cobbles, paving stones, bricks, setts of granite or sandstone, gravel or limestone chippings or bound gravel. Local materials and colours similar to the local geology should be used;
- Tactile crossings can be provided in a non-standard way in villages, for example with brass or stone studs attached to the existing stone paving;
- Wherever possible, kerbs should be avoided in rural areas, especially adjacent to commons or greens. Arbitary pavement extensions should be avoided. Where over-running and erosion cause problems, and a solution is needed, then earth embankments or verge reinforcement should be considered alongside kerbs of granite, logs and timber sleepers. Edge detail also encourages cars not to erode the edge of lanes. Low-profile, splayed kerbs or those "laid on a batter" (at an angle) are all methods used to minimise the visual impact of kerbs;
- Grasscrete is an effective way of reducing the impact of surface car parking.

01-03. Intrusive, lurid road markings should be avoided
04-05. Rural lanes do not always need a hard curb edge

01. Parking spaces can be marked without the use of white lines

02.The grass strip along the centre of the road proves to be an effective traffic calming measure; and one that fits with the natural landscape

03-04.The soft edge is maintained (Dean Hill, Elmstead and Waltham Church)

01 - 03. The use of grasscrete, sometimes with synthetic materials, can reduce the visual impact of car parking

01-04. Historic surfaces in the Kent Downs: traditional paving, using flint, granite, brick and stone, can be used as an integral part of design

Case Study: Shrewsbury

Shrewsbury High Street was remodelled by Shropshire County Council in the 1990s. Road markings were removed, signage reduced to a minimum, and a series of cobbled courtesy crossings introduced to reflect established pedestrian desire lines. A Controlled Parking Zone (CPZ) avoids the need for yellow lines. The scheme has been widely praised for achieving smooth flowing, slow speed traffic movement and a comfortable relationship between pedestrians, people in wheelchairs, cyclists, and drivers.

Case Study: Corfe Castle, Dorset

Corfe Castle in Dorset has attempted to retain and enhance its streetscape surfaces, in line with the cultural heritage of the town, particularly its castle and built environment. Corfe has introduced a number of cobbled courtesy crossings that provide locals and tourists with a safe place to cross, and encourage vehicles to drive with caution, hence calming traffic.

Case Study:Tervuren and Leuven, Belgium

Tervuren and Leuven show classic examples of high quality streetscape specification, for example in the use of shared space, delineation of car parking spaces and speed reduction measures.

Case Study: Market Towns in Somerset

Streetscapes in some of the old market towns in Somerset have been redesigned to greater reflect contextual design principles. Road layouts are defined through the use of treated, shared surfaces and intrusive white and yellow road markings removed. The “dialogue” between local architecture and road space is thus re-instated.These designs for the towns of Midsomer Norton, Keynsham, Paulton and Radstock are exemplars showing how the streetscape can be shared between pedestrians and vehicles and returned from a highway-dominated environment to a pleasant setting for social interaction.

.Case Study: Magor, Monmouthshire

Magor in Monmouthshire is the only village used as part of the initial Home Zone pilot scheme in the UK. The Home Zone scheme upgraded the central village square and the immediate adjacent approach roads, all of which were set in a conservation area. Although flush kerbs and materials differentiate pedestrian and vehicle space, there are no changes in grade. Parking, of particular importance to the local retailers, is indicated by paviours, but no white lining. The resulting scheme provides a much improved streetscape. Shared space reduces or removes obvious delineation between spaces for motorists and non-motorised road users. This involved the removal of kerbs, signs, guardrails and markings.

Case Study: Tunbridge Wells, Kent

Tunbridge Wells has developed some excellent rural road timber kerbing, wooden backed signing and route narrowing schemes. (01-05)

01


04


02


03

05

Tunbridge Wells BC (David Scully)
(Face fixings now prohibited)

3.6 Street Furniture

The existence and attributes of street furniture in the villages and lanes has an important influence on the quality of the streetscape. In many streets and public spaces, uncoordinated and poor quality street furniture masks local character. Better practice uses the careful siting of street furniture, managing movement, reducing the need for physical barriers and improving aesthetics. Furniture should be sited to increase visibility in the street, to improve "natural surveillance" and create a safe environment. It should not dominate the street scene. Materials, size and form should be inspired by the surrounding context. Existing buildings, pavement lines can guide siting.

Key principles:

- As a rule, the best street furniture is simple, fits the location and reflects local character. "Off-the-peg" designs may reduce the local distinctiveness of the area. The first stage of design is to identify and remove superfluous or redundant items. Too many bollards can look cluttered in the streetscape and consideration should be given to alternative methods of preventing unauthorised vehicle use of spaces. Style, colour and siting of street furniture and equipment should be co-ordinated. 'Armco' crash barriers should generally be avoided in rural lanes. Consideration should instead be given to using wire rope barriers. Post and rail fencing can be used for boundary treatments;
- Provision of bus shelters encourages the use of public transport and there are a wide variety of potential shelters available. Many of these, however, are inappropriate in a rural setting. Shelters should certainly be located where their adverse visual impact can be minimised and surveillance of them can be maximised. Use of wood or brick as opposed to metal, and minimal use of advertising hoardings, can give a more subtle appearance. Locally produced wooden shelters can help support sustainability and the local economy. Modern designs may be appropriate, particularly where a shelter needs to form a focal point in the streetscape or where there is little contextual reference to use. Shelters in a village setting can also be used for other purposes, such as a parish and tourist information point or for informal seating;
- Other historic or distinctive features -including milestones, tollhouses and tollgates, bridges, war memorials, post boxes, telephone call boxes, village signs, street nameplates and lamps, etc. should be retained in situ wherever possible and maintained. They can help reinforce the local identity of the villages and lanes in the Kent Downs. An inventory of historic street furniture should be compiled and plans made for future maintenance;

Lighting is often required in rural areas on safety grounds, however its existence can be highly intrusive and environmentally damaging, especially in sensitive areas. In order to reduce the effect of lighting in the AONB:

- The location of lighting should be determined by local circumstances. Column mounted lights can be a significant feature in the landscape. Wherever possible lanterns should be placed on existing buildings, structures or posts. If a column is necessary, then it should be located so that it relates well to buildings, vegetation and the streetscape. Avoid introducing junction designs that must be lit, e.g. roundabouts;
- Consider selective lighting of problem areas, rather than complete schemes. For example, a footway to a village hall may be a priority due to frequent evening use of the building, but it may not be necessary to light the whole of the village. Ensure that schemes are not damaging to ecologically sensitive areas, these can be identified by carrying out an EnCheck;
- Where lighting is necessary, high pressure sodium lights with columns 5-7m in height will lessen visual glow. Dark matt colours will reduce the intrusiveness of the columns themselves.

01. Street furniture is kept to a minimum and the traditional kerb edge retained (Abbotsbury, Dorset)
02. Over use of street furniture can lead to a poor design outcome
03. Street furniture can enrich the streetscape, reinforce local identity and act to slow speeds (Hartland Moor, Dorset)

01-05. Historic street furniture should be retained and enhanced wherever possible

Case Study: Starston and Stiffkey, Norfolk

Starston and Stiffkey are both rural villages that have excelled in the adoption of understated and modest street furniture. They impressively demonstrate that much of the better streetscape design practice is premised on simplicity. Intrusive signage and road markings have been removed from the streets, not only de-cluttering, but also managing traffic on the country roads. For example, the use of narrow lanes encourages traffic to move slowly. When combined with naturally winding streets, which invoke a cautious approach around bends, the villages accomplish speed control without the use of garish fluorescent or reflective signs. Speed control is much more effective when carried out in this manner. And importantly the character of the local built environment is retained.

Case Study: Downham Market, Norfolk

A number of important lessons can be drawn from some excellent streetscape design in Downham Market, Norfolk. The town's built environment is supported by recent streetscape schemes - street furniture and the use of traditional stone for paving complements and uses local materials found in the surrounding buildings. The public realm strongly gives priority to pedestrians and cyclists over traffic.The results are that the town continues to reflect its context, remains unique in terms of its built heritage, and is not overwhelmed by an over-engineered traffic environment. The removal of zebra crossings, for example, and replaced with more subtle shared and treated surfaces encourages traffic to slow and gives pedestrians the right of way. (01-05)

(Shiels Flynn Ltd)

Case Study:Towns in Suffolk

Good practice is also found in towns such as Woodbridge, Eye and Framlingham, with route narrowing in high streets and high quality streetscape matiarials. (01-03)

3.7 Signing and Nameplates

Street signs and nameplates are of fundamental importance to the understanding and legibility of a place. Local variations in design, materials and lettering add richness and variety to the street scene. However, over provision and poor siting of traffic signs and notices can spoil the visual attractiveness of a place. Too much information can confuse drivers.

The general approach in terms of policy and guidance on speed management and signing in Kent is contained in the County Council's Speed Management Strategy (KCC, 2004). Signs and road markings are an important element of traffic management and road safety. They can, however, increase clutter in the countryside. There are many examples within the Kent Downs of signing proliferation problems and the need for any additional signing should be considered very carefully. A multi-disciplinary team of highway engineers, urban designers and conservation officers should prepare a signing strategy for the Kent Downs, one that is efficient in traffic circulation terms and also visually sensitive. Ashford (Kent) includes some good signage examples.

Key principles:

- Redundant signs should be removed. Where signs are necessary they should be concise, no larger than necessary and carefully sited. Warning signs should only be installed where there is a need, based on site observations and/or accident records. Any new signs should be located safely where they can clearly be seen. They should however have regard to their setting - for example, they can be placed, by agreement, on existing features such as buildings, boundary walls, railings and posts;
- Warning signs should only been installed where there is a need, based on site observations and/or accident records. Any new signs should be located safely where they can clearly be seen. They should however have regard to their setting - for example, they can be placed, by agreement, on existing features such as buildings, boundary walls, railings and posts;
- Signs should be as small as is practicable, legal, safe and enforceable and departures should be sought from the Department for Transport and Kent County Council standards to achieve this wherever this would be advantageous.

Consideration should be given to:

- Setting signs at lower levels to reduce visual impact, especially where this allows them to have a hedge or wall as backdrop. Signs should not be placed against the skyline; placing them in front of hedges or trees will reduce their impact;
- Compiling information onto composite signs (unless these would be overly large) and introducing standard symbols if this aids legibility and reduces size;
- Signs themselves should be constructed of local natural materials where this reflects traditional uses and is feasible (e.g. timber, stone or cast iron). Posts should not project above the top of signs;
- Brightly coloured sign backing plates should be avoided, including "yellow backs". Black or grey sign backs are more appropriate for the Kent Downs. Brown tourism signs may be justified in terms of attracting and guiding visitors, but care should be taken not to allow proliferation. Illuminated signs are inappropriate in the AONB – again the Department for Transport can grant exemption from any perceived requirements.

01-08. Many road signs are superflous; in places they hugely dominate the scene

01

02

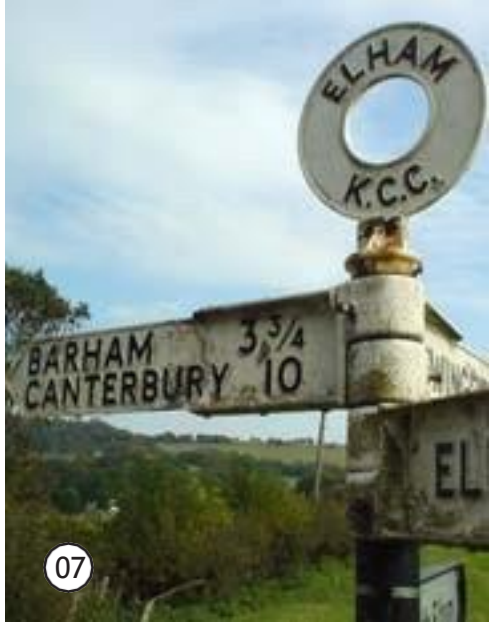

03

04

01-04. Signs using traditional materials may be more appropriate in a sensitive location such as the Downs. Modern designs can be mounted on wooden backs (through the face fixing is now not encouraged)
05-06. Good practice examples from Ashford (Kent)
07-08. And from the Kent Downs

05

06



07

08

Case Study: Fingerpost Restoration in the Quantock Hills AONB

There are least 150 old metal fingerposts within the Quantock Hills AONB and the condition of many of these has deteriorated over the years.Their restoration having been identified as an action point in the AONB Management Plan, an initial 30 signs at high profile locations (at least one in each parish) were chosen for complete restoration. New arms, finials and posts were forged at Cerdic Foundries in Chard in a traditional manner, with assistance from Somerset County Council and volunteer painters.

The opportunity was taken to add a metal collar around the post with the distinctive junction names (such as Dead Woman's Ditch or Birches Corner) and the AONB's buzzard logo. Monies came from the Local Heritage Initiative programme of the Heritage Lottery Fund; since this initial programme of restoration, the County Council's has stated that its policy is to restore such signs throughout the county in the same manner.

Quantock Hills AONB Service

3.8 Landscape and Ecological Features

The streets and lanes in the Kent Downs at times provide some of the most enduring features in the landscape. Some routes have their origins in prehistoric times, others represent parish or land ownership boundaries and many have names which reflect their original purpose.The presence of routeways may have been the original catalyst for the siting and naming of settlements. This historical context provides a rich palate for future streetscape design.

Ideally the local character of the Kent Downs should be enhanced with the continued use of local materials. Although there may be local supply difficulties – for example, local materials may not be available in sufficient quantities – every effort should be made to reflect the existing landscape and ecological features in new streetscape schemes.

In addition, roads offer a large "soft estate" – land within the highway boundary but not including the hard road surface. This usually comprises hedges and narrow grassland verges, and sometimes much larger areas, often within interchanges or on land acquired when new roads are constructed.They can provide a wide variety of habitats.Vegetation within the highway needs to be appropriately maintained. Although there is a cost implication here,roadside vegetation is an important asset to the Kent Downs landscape. As well as being important visually, vegetation can also reinforce the local identity of the highway network, provide a boundary to the highway, prevent erosion, enhance local biodiversity, provide wildlife habitats, reduce airborne pollution and reduce the impact of new development.

Key principles:

- Hedges, shaws, ditches, hedge trees, woodland banks and verges adjacent to roads should be retained wherever possible and given appropriate management. Where hedge trees cannot be retained in their current shape, then selected trimming is preferable to total felling. Ageing tree stock should be replaced with similar species to retain the stock. If changes are made, the local planning authority should be consulted over protection requirements;
- Preserving historic gaps in hedges can be important in allowing viewpoints and appreciation of the countryside from the road. Regimes to mow verges should strike a balance which both prevents over-tidying and keeps scrub in check;
- Free-standing trees at junction triangles can be particularly important features in the landscape. Sometimes they relate to the junction's name. As such, efforts should be made to retain and replant if necessary;
- Tree maintenance might include cutting and pruning, thinning, pollarding, crown reduction, coppicing, hedge laying and flailing. All should be carried out by specialists and at the correct time of year to protect the vegetation and wildlife. Tree surgery is usually best done in the Autumn and Winter;
- Grass verges often need to be maintained for safety reasons. However, if maintained sensitively, they can be a haven for wildlife. Careful cutting regimes may result in the appearance of a greater number of wild flowers. Chemical spraying should only be carried out as a last resort.Verges should be profiled so that they relate to the existing roadside character. Reseeding should be undertaken with suitable species and mixes. In certain locations it may be necessary to returf to ensure early establishment. Some verges are designated as Roadside Nature Reserves – this allows the maintenance of a selection of verge types, protecting rare and unusual plants, and the timing of verge cutting to suit flowering and seeding times;
- Highways often abut or pass through village greens, areas of common land or public open spaces.These are usually highly valued features in a locality and in many cases have a history of protection and sympathetic management and legislation. Some commons and greens are important wildlife habitats supporting herb-rich grassland or lowland heath. Any alterations to adjacent highways need to take account of the importance of these areas and should safeguard or enhance their special qualities. Works such as kerbing, signage, markings, illumination, carriageway realignment and widening and other improvements should be considered very carefully. If there is an unavoidable requirement to alter the highway adjacent to a village green or common, and where land take is involved, a "similar or equally advantageous" area of land should be exchanged.

01-03. Streetscape design must be consistent with preserving views and maintaining a rich landscape and heritage

01-02.The landscape can be part of the streetscape

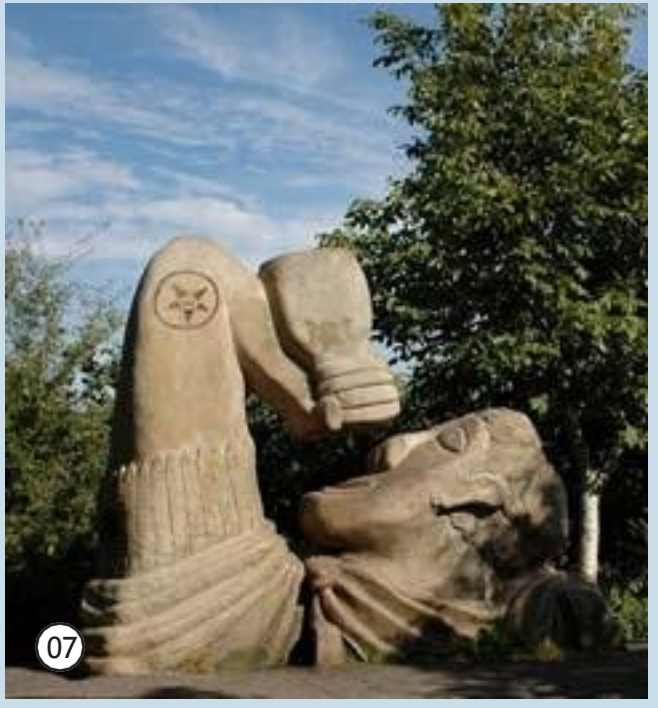
3.9 Historic and Modern Features

Existing items of historic street furniture often contribute greatly to the character and appearance of the rural street scene.They are often important artefacts in themselves. Features such as old bollards, lights, seats, drinking troughs, pumps, drainage channels and covers, milestones, memorials, telephone boxes, and directional signs should all be retained in their original locations. Modern designs often work well with traditional designs - high quality design can enrich the public realm.

Key principles:

- Traditional railings: various forms of decorative and plain metal railings have been used to highlight property boundaries in the Kent Downs. Houses, churchyards, parks and other areas in villages are often enclosed with metal railings, sometimes in conjunction with brick or stone. Where these have survived, every effort should be made to retain and properly maintain them;
- Traditional walls: the majority of old walls which survive in the Kent Downs are made from brick, flint, ragstone or sandstone. Every effort should be made to ensure the long term preservation of old walls. Some may be protected as listed buildings or structures within conservation areas. Changes to footway and road alignments and levels can often adversely affect existing walls. When repairing old walls, existing materials and techniques should be used;
- Modern designs can make a positive contribution to the environment. High quality and innovative solutions can provide a unique and contemporary feel to the streetscape. In some places it will be more appropriate to use modern designs than traditional “pastiche”, standard catalogue products. New features may however work better if they reflect their function and location.

01-05.Traditional and modern designs can work well together if carefully applied



Artwork on the Sustrans National Cycle Network provides examples of contemporary design fitting well into the landscape.

06. Beamish shorthorns (Consett NCN route 7);

07. Gaius Sentinus fountain (Bristol NCN route 4) (Sustrans)

01. Poured metal (Hillend Loch NCN route 75);

02. King Coal (Consett NCN route 7) (Sustrans)

Case Study: Spilsby, Lincolnshire

The small market town of Spilsby has enhanced its visual impact by exploiting the memorial as a focal point, resurfacing pedestrian areas with quality paving and providing seating. Simple public realm improvments and quality street furniture create an outdoor 'living room'; an ideal place for informal meetings and socialising.

4 Case Study Design Guidance

4.1 About the Streetscape Design Case Studies

This section of the handbook provides case study examples of how the principles of good streetscape design might be interpreted.The examples are selected to provide a range of streetscape design contexts (e.g. village and route based), and are spread throughout the Kent Downs AONB.
The case studies here do not represent actual projects on the ground, but illustrate the potential for improvement. Further work would be required to translate the early ideas into workable projects, including much necessary consultation with the public and local stakeholders. In some cases the local authority may already be undertaking improvements in the area.There is no intention of competing with projects here.

In addition, the case studies are not presented as “templates” to be copied elsewhere. Each streetscape improvement study should be considered on its own merits, and designed in respect to the local context.The case studies presented here, therefore, are intended to stimulate better practice.


01. Chilham


02. Eynsford


03. Pilgrims’ Way


04. Hollingbourne


05. M20 junction 11


06. Shoreham


07. Shipbourne

08. Otford

Case Study 01. Chilham

Existing conditions

Chilham is the quintessential Garden of England historic village and is a former market town. Set on the hill top, the half timber and brick buildings, narrow lanes and village square contribute to the village's distinctive character.

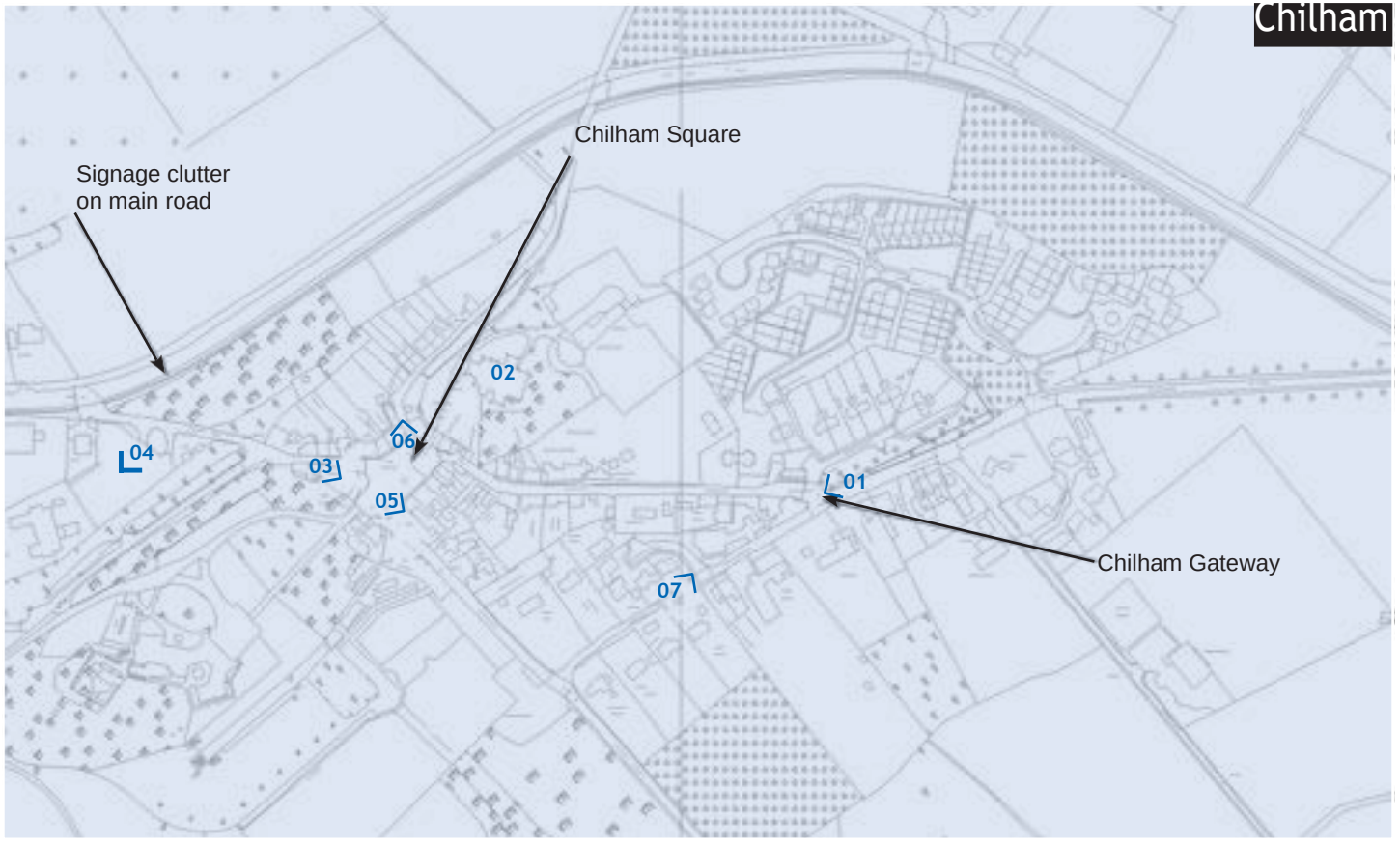
The village has its origins in prehistoric times – the nearby Juliberrie Barrow dates from the same period as Stonehenge. Chilham was an Anglo-Saxon stronghold for several hundred years after the Romans were driven out and the Domesday Book (1085) records 38 serfs and 12 houseowners in the village. The basic feudal layout of the Middle Ages can still be seen – a cluster of small houses around the market square, laying outside the gates of the palatial grounds of the Lord of the Castle.

Traffic levels, car parking and signage clutter is however having a detrimental impact in some of the more sensitive locations and streetlife is not being promoted to the extent that it could.

Chilham as viewed from the top of St Mary's Church tower (photo credit: Guide to Chilham, 1996)

Although much of the village is clutter free, there are a few examples of unnecessary signage

Cars are parked in the village square and visually dominate this attractive place. Much more can be made of the space



Narrow street width and placement of built form naturally slows traffic speeds. The presence of window boxes, plant pots and doormats very subtly act as traffic calming features - indicating that this is a place for people. Drivers need to take care

Unnecessary clutter

The car park at the bottom of the hill is well placed on one of the routes into the village. It would be used more frequently if there were fewer opportunities to park in the village square and it was made more attractive

Some new development has been inappropriately designed - template solutions from DB32 are not appropriate for a village of this special quality. This junction also is designed to cater for 30mph traffic, yet is in a 20 mph zone.

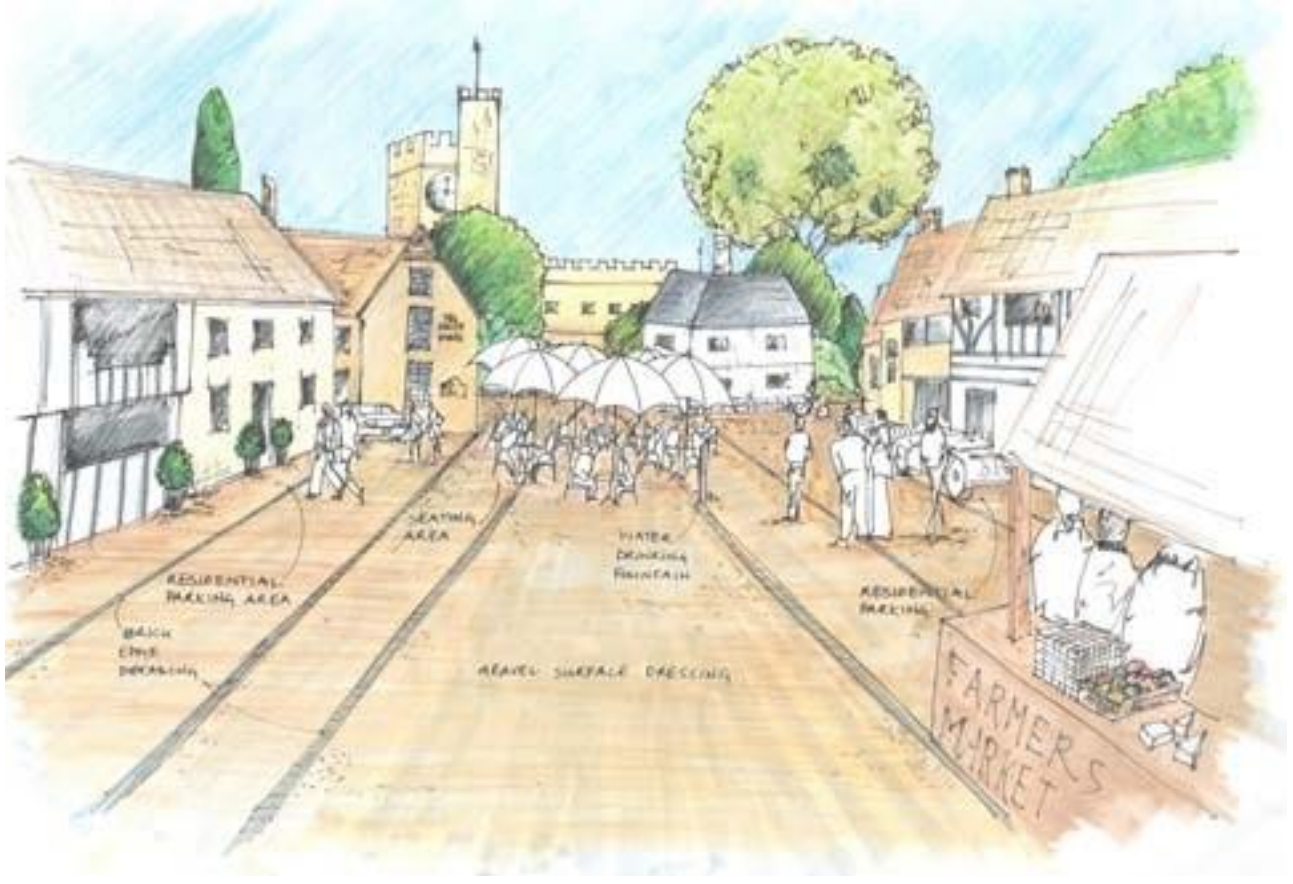
Potential proposal 1:The gateway from the east

The entrance to Chilham is made less traffic sign dominated and more use is made of the local context. Intrusive white lining is removed along with signage clutter. The road junction is paved with setts, possibly edged with brick, as found outside the Woolpack Inn, to extend the visual influence of the Inn as the natural gatekeeper for the village.

The red brick outside the Woolpack Inn is used to mark the entrance into the village

Potential proposal 2: Chilham Square

The square is returned to use for local residents and visitors, rather than acting as a car park. Only residential parking is allowed – with available spaces marked by subtle use of surface materials. At least 50% of existing parking space would be removed. Visitors to Chilham would instead use the car park at the bottom of the hill.



Outdoor seating can be provided for the White Horse, spilling out into the square. A water drinking fountain provides a focal point, yet is still subtle in size and impact. Space is provided for a weekly farmers market (a market dating back to 1260 was previously held by Royal Charter here); together with occasional Morris dancing performances and the annual Young Men and Maidens race, which are popular events in the village. The route from the Jacobean Mansion House to St Mary's Church is marked with brick edge detailing. Any signage clutter is removed. The square again becomes a place for people.

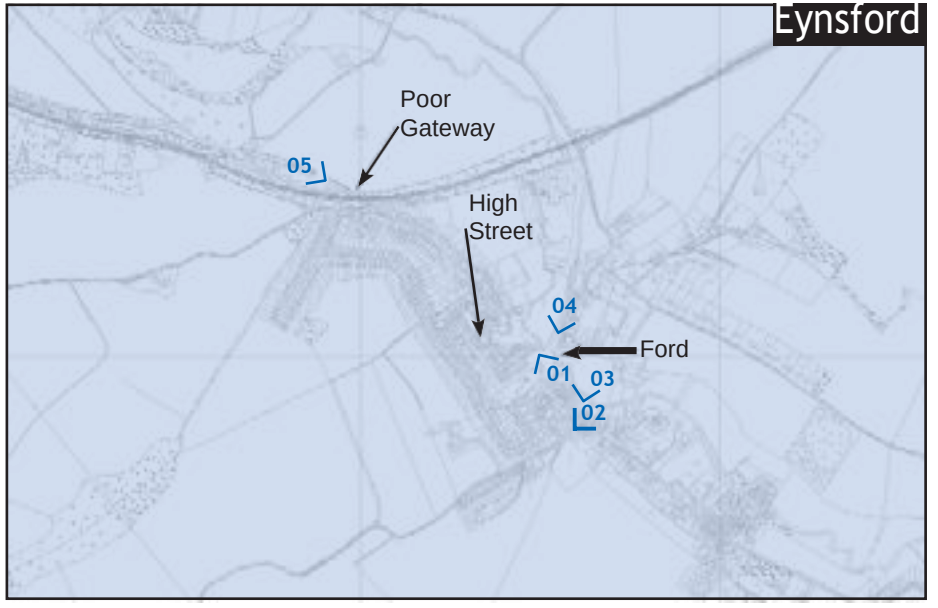
Case Study 02. Eynsford

Existing conditions

Eynsford is another beautiful village in the Kent Downs, with an attractive ford over the river Darenth. Unnecessary signage clutter however intrudes. Within the village there is extensive use of yellow lining to control parking at peak visitor periods.The current gateways into the village are also unsympathetic, with large signs and red tarmac with speed roundels.

Potential Proposal

Proposals are modest yet will improve the feel of the village. Signage clutter is removed, together with yellow lines. Available parking spaces are indicated by subtle use of surface materials. Gateways are redesigned to provide more appropriate entrances – the southern gateway for example has intrusive signing removed and additional hedge planting to visually narrow the carriageway and more naturally slow speeds.



01-05. Classic streetscapes; but traffic paraphernalia is intrusive. Modest changes such as reduced use of signing and lining can improve the streetscape

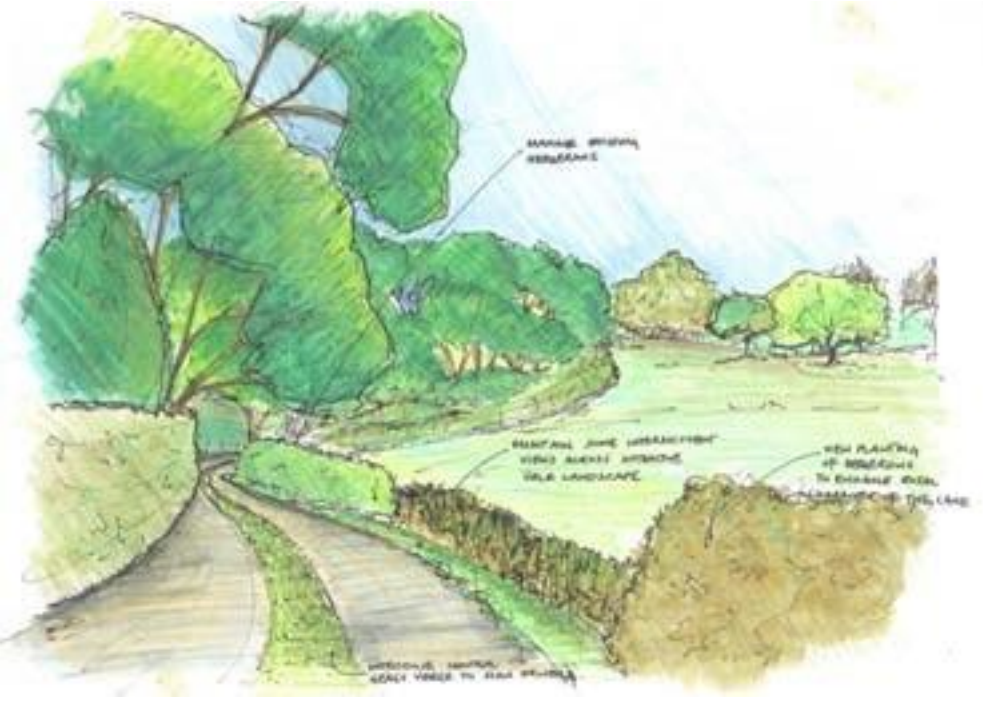
Case Study 03. Pilgrims' Way

Existing conditions

This section of the historic Pilgrims' Way, between Boxley and Hollingbourne, uses mainly minor roads. Traffic levels are increasing, however, especially at weekends. Walking and cycling and driving for leisure purposes are becoming less attractive. Erosion of verges and fly tipping are becoming more commonplace.

Potential Proposal

Particularly attractive sections of the Pilgrims' Way should be designated as special "lanescape" areas.They should receive special design thought to improve their aesthetic feel. Through traffic might be limited by not providing through signing; local signs only providing indications of the next village. Any existing white or yellow lining should be removed. A central grass strip can visually narrow the lane, thereby slowing speeds. Hedgerows can be maintained and enhanced, providing lane narrowing where appropriate or giving intermittent views across the rolling landscapes.



The tranquillity and beauty of the Pilgrims' Way (near Harrietsham)

Heavy traffic is affecting the quality of the Pilgrims' Way

Some parking and fly tipping occurs, in this case where lanes have been widened

Case Study 04. Hollingbourne

Existing conditions

Hollingbourne provides a classic case study of gateway treatment.The approaches to the village suffer from intrusive signage, red tarmac and speed limit roundels. These have been introduced in an effort to reduce speeds.They are not particularly suitable for a location in the AONB. It is also doubtful whether this type of intrusive, template-based design is more successful in reducing speeds than more subtle, context-sensitive designs. Within the village itself, the narrow, winding High Street and enclosure provided by the building frontage helps to naturally slow traffic.

Potential proposal

The existing gateway surfacing and signage is removed. A rumble strip or other gateway marking is provided, together with a new gateway feature to the right of the entrance, complementing the existing brick pillar opposite. Careful, context sensitive design thus slows traffic. 20 mph signs are located on the existing/new brick pillars in a more subtle manner, and white lining removed.

Traffic clutter dominates the scene.

The historic village High Street

We should design with context in mind

Case Study 05. M20 Junction 11

Existing conditions

This junction above the M20 and Channel Tunnel Rail Link is very insensitively conceived in terms of impact on the environment. A myriad of intrusive signing, lighting poles, poor quality surface materials pervade. The result is not appropriate for a sensitive location in an AONB. The Kent Downs can be seen to the north, yet views are interrupted by traffic paraphernalia.

Potential proposal

The road junction and CTRL are more effectively integrated into the rural environment. Soft and hard landscaping materials are used which are more appropriate to the setting. Signage is rationalised and made smaller in scale. Higher quality lighting columns are used and the view through to the Kent Downs is enhanced.

The view through to the Kent Downs is obscured

This type of treatment is not appropiate in the Kent Downs

The hard landscape and lighting adds little to the spectacular surrounding scenery

Case Study 06. Shoreham

Existing conditions

The historic village of Shoreham suffers from parking problems along the High Street. Parking and drop off associated with the village primary school is a particular difficulty, causing queuing at peak times and visual intrusion. The no parking yellow lining is also visually intrusive and not appropriate in a historic village. A number of signs have been introduced to try to prevent parking.

Potential proposal

The parking intrusion problem is resolved by marking areas where people are able to park, using subtle surface treatments with brickwork or setts. White and yellow lining can thus be removed from the village. This can even be considered outside the school - at least by using a more subtle marking than intrusive yellow. Signage clutter is also rationalised. Better use is made of the visitor car park to the southwest of the school – this is within easy walking distance, and use of this would help improve the streetscape to the front of the school.

The historic village of Shoreham.

The school run causes congestion on the High Street.

Walking and cycling to school should be encouraged.

A car park is available for visitors to the village and should be used for the school run.

Safe Routes to School

It will be important to link any design initiatives with wider efforts to reduce car useage. There are good practice examples to follow from around the UK. For example, North Yorkshire County Council has measured 5-minute walk time isochrones at 15 schools in the county - these are measured by the pupils, setting a walking boundary line direct from the school gate. Within this boundary, children and staff are encouraged to walk and cycle. Those living outside the boundary are encouraged to park at the boundary and walk in, getting their healthy quotiant of exercise. A similar approach could be pursued in Shoreham, and indeed all the other villages in the Kent Downs. Reducing car-based trips to school will help improve the quality of the streetscapes in the villages. Increased traffic volumes, remember, are one of the problems behind the erosion of streetscape character in the Kent Downs.

Case Study 07. Shipbourne

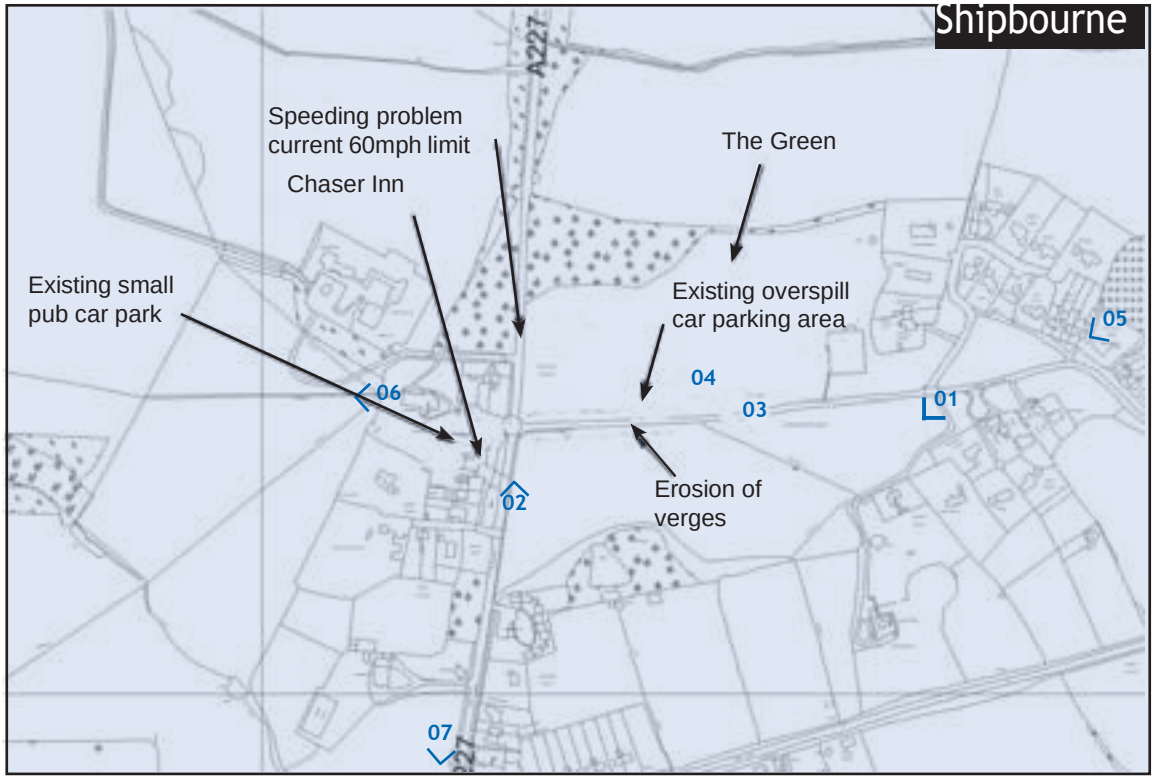
Existing conditions

Shipbourne is a small village set around a large, attractive green in the Low Weald.The main A227 road runs north to south through the western partofthevillage.The Greensand Way runs east to west, adjacent to the Chaser Inn. Current problems include speeding on the A227 and visually intrusive car parking on the green, over spilling from the Inn.

01.The beautiful village green at Shipbourne

02.The A227 runs through Shipbourne; traffic travels at high speeds

03. The village green and Chaser Inn provide a real focal point for the village



06. The Greensand Way passes adjacent to the Chaser Inn and is a popular route for walkers in the summer months

04. Overspill parking for the Chaser Inn dominates the main landscape feature in Shipbourne (the Green)

05. Classic greens within the village

07. Some of the signing treatment along the A227 is not appropriate for an AONB

Potential proposal

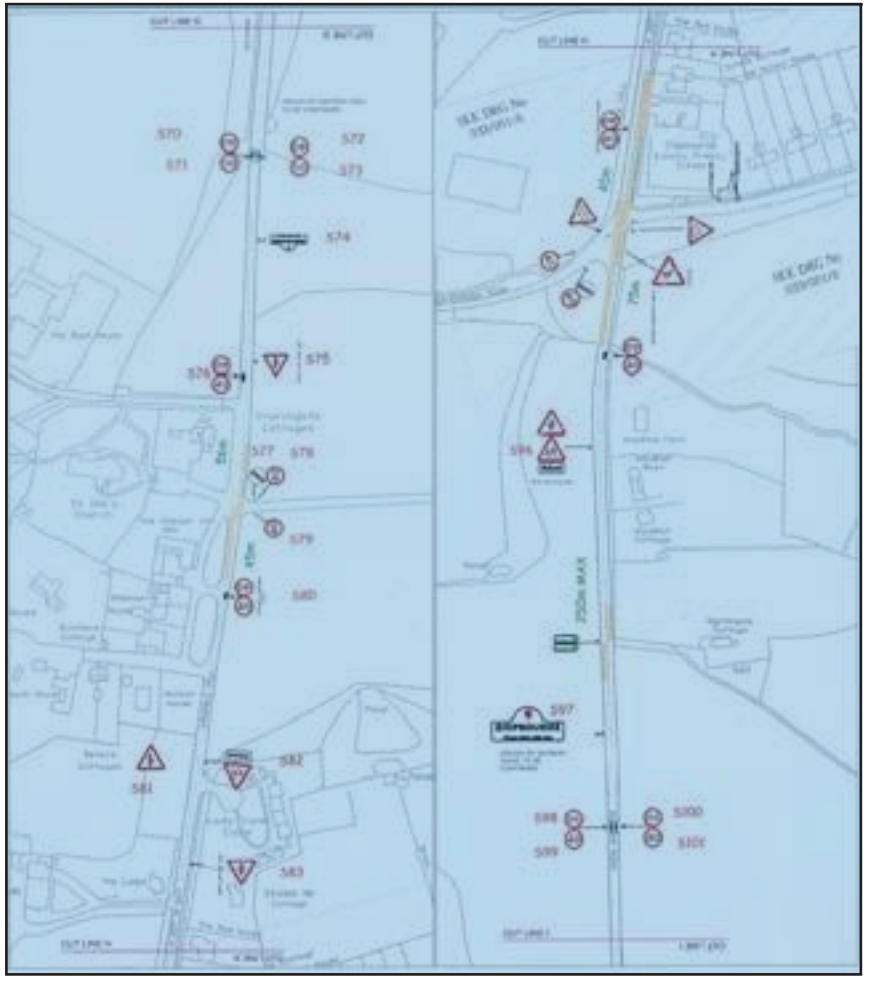
The A227 is transformed into a shared space area in front of the Chaser Inn and potentially along the extent of the road that runs throughout the village. Kerbs and white and yellow lining are removed, and the road surface dressed and edged with a sandstone sett. A rumble strip or sandstone sett band mark the entrance to the Chaser Inn and act as a traffic calming feature. Road widths are narrowed and the quality of the streetscape specification dramatically improved. The northern and southern gateways to the village on the A227 are marked with granite sett rumble strips, coordinated with the existing built environment and landscape features. Within the village, white lining is removed and the main road gravel surface dressed. 40mph signs are located on low timber bollards, or on existing walls.

The parking problem is addressed with additional provision in less sensitive areas – small car parks are provided in the northwest or southwest corners of the green, screened by native hedgerow and tree planting. These locations are visually less intrusive than extending the existing provision in the centre of the green and can be screened easily. This may mean that the existing overspill parking in the centre of the green can be reduced in size, and the minor road (the Greensand Way) narrowed to single carriageway with 2-3 passing places.

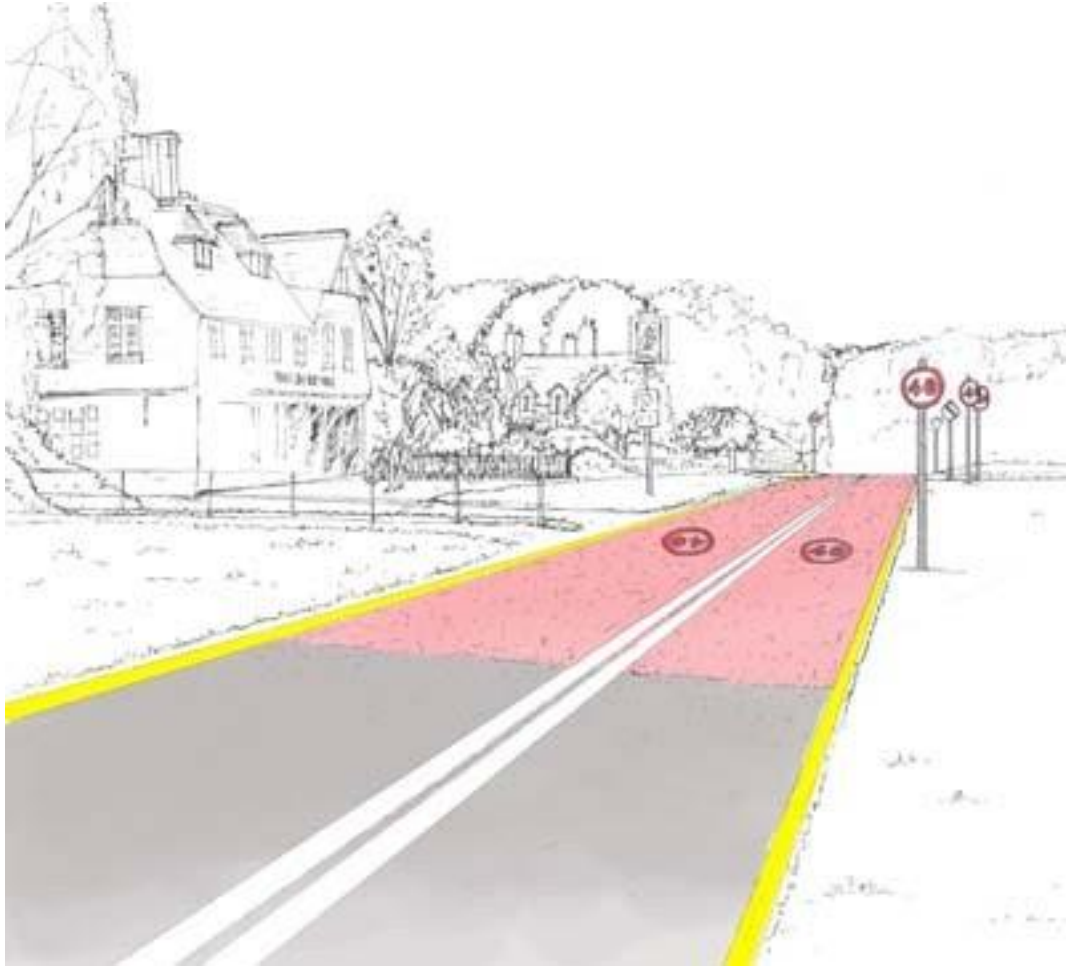
The proposed new pedestrian friendly environment within Shipbourne

An alternative: a contextual and shared space design approach for the A227 through Shipbourne. Traffic is managed in a manner that supports quality in the landscape

The “standard” engineering approach



The “standard” engineering approach would look like this; over 100 signs would be needed for a 7km stretch of the A227 (north, south and through Shipbourne)



Such an approach might be aimed at slowing traffic, but much too much signage clutter is involved, and this would detract from the special landscape in the Kent Downs. There is also little evidence that car drivers take notice of such signing, hence speeds are not slowed in practice

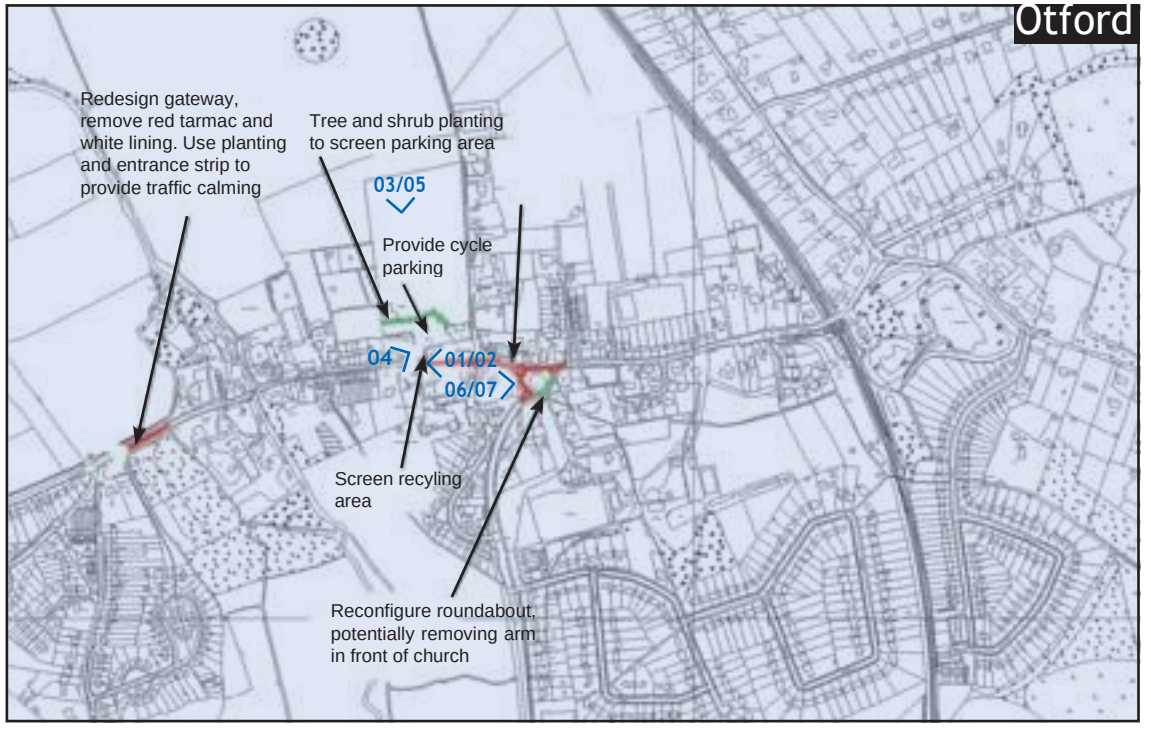
Case Study 08. Otford

Existing conditions

Otford is a village found just to the north of Sevenoaks. It is busy with local traffic and the antique shops attract visitors to the area.The village green and pond are attractive features - and contribute to the character of the village and wider AONB - yet are hidden and withdrawn from usage by being surrounded by traffic (effectively as the centre of a traffic roundabout). Within the village, signage clutter and excessive yellow and white lining are also visually intrusive.

Potential Proposal

Potentially the village green and pond could be returned to the village, and linked back to the church by taking out, or downgrading (to access only) one arm of the roundabout - this can then be re-landscaped.The remaining lanes of the roundabout and main section of the High Street are re-surfaced as shared space using local materials.Traffic is slowed. General signage clutter is removed, village gateways redesigned and road markings removed within the village. HGV traffic may need to be re-routed – this type of issue would need to be picked up in detailed consultation associated with any scheme.



The busy High Street

Some signing dominates

The very well used car park

A poor gateway into the village and yet more clutter

Siting of recycling area could be given more thought

The heart of the village - including the village pond - is in the middle of a traffic roundabout

Potentially, the village green and pond can be returned to the church, and the village, by taking out one arm of the roundabout. Traffic has to take care when driving through the village.

5 The Toolkit

5.1 What Can I Do?

This final section of the handbook considers issues of implementation and, in particular, offers advice as to how new streetscape design projects can be brought forward successfully. It is essentially a "toolkit" of ideas that can stimulate new thought and includes the following sections:

- A process for interested parties to follow in implementing their own projects;
- Techniques to audit the existing streetscape and issues to consider in appraising what is important in the local context;
- Typical design options: gateways, route narrowing, surface treatment, etc. offering inspiration to draw from;
- Detailing the project: surface materials, landscape treatments and street furniture;
- Community participation techniques – how should projects be developed to ensure ownership?
- Project launch: issues to consider in the final study stage – formal launch, generating media and public interest and ongoing maintenance.

The general premise is that improving the streetscape in the Kent Downs is an ongoing project - all new schemes should be carried out to a high specification and, over time, the quality of the streetscape will improve dramatically.

A number of key requirements are likely to be important in the design of your new projects:

- Research: identification of the historic and landscape context in which street design measures will be taken. This handbook provides a starting point for identifying special characteristics in the Kent Downs AONB;
- Project champions: probably the most important single issue. An organisation and individual/team are required to take responsibility for the project. Whilst the project may be taken forward by some sort of partnership, there still needs to be a single driving force that will take overall responsibility for the success of the project and that will push to resolve any difficulties that arise. It is often the project champion that defines the success or otherwise of a project;
- Stakeholder involvement: is critical and will need to be widely based and with a consistent commitment to a quality product. Likely stakeholders include the public, local authority officers, developers, landowners and funding agencies. All projects will affect or require the involvement of a number of different interested parties. The stages of design, implementation and maintenance should be 'owned' by all parties as far as is possible;
- Multi-disciplinary design inputs: the actual design of the streetscape project will require multi-disciplinary inputs – this includes highway engineers, urban designers, landscape designers, transport planners and representation from the local public.

A number of further useful pointers are found in the Annex to this handbook, including potential contacts, legal framework and selected references.

5.2 A Process to Follow

A typical implementation process is shown in the diagram overleaf. This is likely to include a number of key phases, as outlined below:

- Initiation
- Audit of problems and context
- Design options
- Detailing the design
- Launch, maintenance and review

The initiation of the project might be made by the local parish, local authority, a developer, civic society or member of the public. If a non-statutory interest provides the first interest in a project, then the relevant local authority should be contacted.

Scheme cost will be an important consideration. Although quality materials are likely to cost more than standard products, minimal interventions can mean that total spend is no more, and potentially less, than the "heavy handed" traffic engineering approach. A speed camera, for example, may cost in the order of £20-40,000 plus maintenance costs – for which can be gained some very good public realm works. Every individual scheme will require an assessment of costs and benefits.

Project Stage	Outputs
Initiation: getting started • Inception meeting • Create project team and management structure; include multi-disciplinary inputs • Define project objectives and work programme • Initiate active stakeholder involvement • Establish review process for monitoring and control	• Inception note • Objectives and scope of project • Project execution plan
Audit and identification of problems • Define assessment criteria • Undertake site analysis, context appraisals and movement analysis - if applicable use Clutter Audits, Placechecks and Street Audits • Carry out community problems identification workshop, e.g. a Design Action Day • Environment and landscape appraisal • Transport and accessibility appraisal • Engineering feasibility and constraints • Meet stakeholders and canvass opinions • Liaise with statutory service providers	• Project appreciation and definition report • Refine streetscape principles, objectives and vision • Audit reports • Community and stakeholder views
Streetscape design options • Generate possible design options • Explore public realm and landscape improvements that can be made • Carry out design workshop, e.g. a Design Charette or Planning for Real workshop • Firm up on design options • Identify traffic highway changes that are required • Explore and detail litigation possibilities • Examine potential sources of funding, including developer contributions • Evaluate options, undertake environmental, streetscape, transport, community and financial appraisals. Carry out safety audit • Establish preferred design approach, plus any required landscape, highway and quantity surveying requirements • Review scheme by expert panel or senior manager • Define delivery mechanisms • Present streetscape design rationale to client team and community forum	• Draft streetscape design options • Community and stakeholder views • Preferred option • Impact assessments and litigation possibilities • Safety audit • Review of preferred option • Funding opportunities and delivery mechanisms

Detailing the design

- Identify prorities - short and long term
- Prepare action plan, implementation programme and phasing strategy
- Focus on detailed design development

Launch, maintenance and review

- Launch project
- Create media interest if required
- Monitor project implementation against project objectives
- Sustain community involvement if required

- Prepare detailed streetscape design project
- Action plan

- Media press releases
- Monitoring note

Participation is a critical part of the process

5.3 The Initial Audit

An audit of the local context should be carried out examining the scale and extent of the problems that need to be tackled.This might include audits covering landscape, streetscape design and transport issues, and also a review of the positive and distinctive features that provide the context for re-design.The local community should, wherever possible, be involved in identifying current perceived problems and opportunities for change.

There are a variety of techniques available to help audit the existing streetscape and appraise what is important in the local context. Section 2 of this handbook gives an indication of what might be "special" concerning the local context for each character area in the Kent Downs AONB.

Scheme audits will also be required post-design.These should include a design and quality audit alongside the traditional safety audit. Devon County Council has trialled this type of approach.

Auditing and Design Techniques

A number of possible techniques can be used in exploring streetscape problems and design options. These might include:

Clutter Audits: arising out of the Save Our Streets Campaign, they aim to identify clutter, enhance streetscape design and reinforce local character. More details can be found at: www.english-heritage.org.uk/saveourstreets

Community Street Audits: used to examine the qualities and design options for particular routes, e.g. the walk into the village centre. They consider issues such as footway quality, furniture and facilities, road crossings and information provision. Community street audits use local groups to identify problems and design opportunities. They have been developed by Living Streets (a national campaigning organisation which aims to improve street quality). More details can be found on: http://www.livingstreets.org.uk

Placechecks: evaluate the overall quality of places, considering what design improvements can be made. They consider what people like about places, what people dislike and what needs to be improved. The Placecheck method has been developed by the Urban Design Alliance (UDAL) with the support of English Partnerships and the DfT. More details can be found on: http://www.placecheck.com

5.4 Typical Streetscape Design Details

What might this good practice mean in terms of typical streetscape design options? Readers of this Handbook are encouraged to look through the earlier chapters to consider:

- What might be special about the local context (section 2.1)
- What design principles are appropriate (sections 3.1-3.9)
- The case studies (section 4) to draw out any transferable lessons

An initial streetscape design scheme can then be drawn up, always bearing in mind that the design should support the local landscape and built environment character.To help in the design of new streetscape design schemes in the Kent Downs AONB, the following pages provide examples of "typical" detailing for:

- Ground surfaces
- Planting
- Street furniture

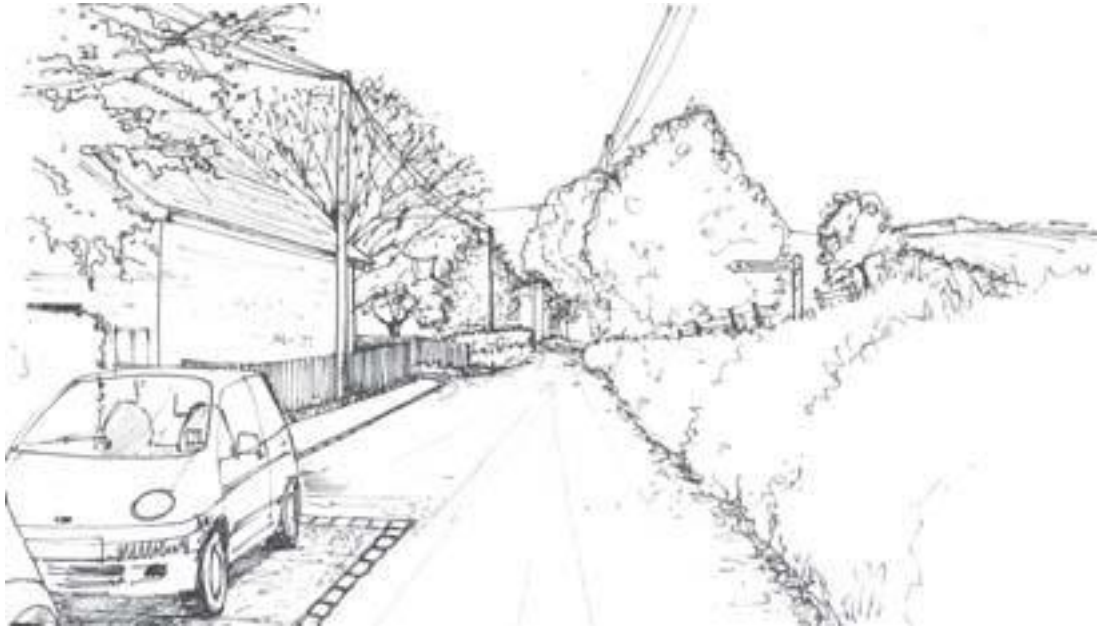
They provide inspiration for the development of new schemes. However, as always, each scheme will be always be different according to aspirations and context. These typical options draw together many of the streetscape designs discussed earlier in the handbook. We should note an important point however: sites and locations vary and the choice of materials and detailing for one site or type of development will not necessarily be the best for the others.

Detailing the design will be critically important; the details can make or break the success of a new streetscape design scheme.The Kent Downs AONB partnership is committed to the principle of sustainable landscape plans. The Management Plan seeks, whenever possible, to promote the use of local, sustainable materials.The use of locally grown timber; for example, promotes the management of local woodland, provides local jobs, supports traditional skills and helps maintain a key characteristic of many of the landscape character areas (coppice woodland).The re-use of locally sourced reclaimed paving materials by recycling them for refurbishment or new development will often be sustainable and also perpetuates local character. However reclaimed materials will often be in short supply. Recycled plastic can replace less environmentally sustainable cast signs.

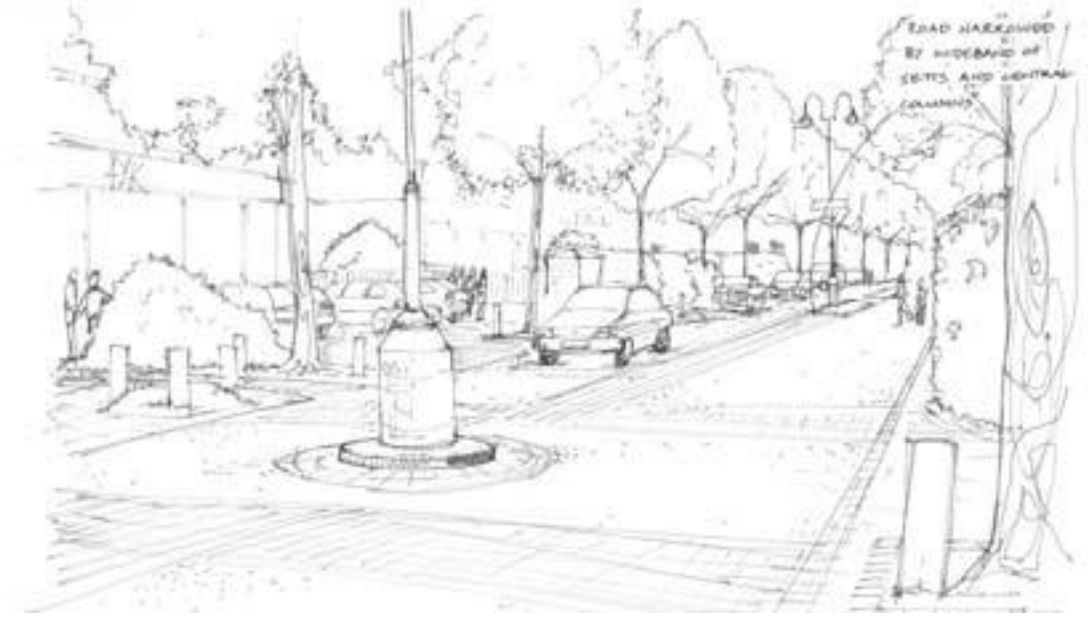
Ground Surfaces

With all ground surface materials it is important to consider and reflect, if possible, the characteristics of the local character area. Generally it will be important to use traditional materials and patterns found nearby, particularly where they have a strong characteristic feature.

The use of new quarried materials is not always straightforward, but new local materials are more likely to be in keeping with the AONB and will generally be more sustainable than importing a similar material from other parts of the country or abroad. Some materials, however, have been imported since the advent of the railways and have become engrained in local character. These may still be appropriate to use e.g. yorkstone and granite as flags, setts, cobbles or kerb stones. Local context is an evolving issue.



Car parking can be denoted with subtle colouring or even a change in surface material



Local materials should be used as the basis for streetscape design, hence ensuring that projects fit well into and support the local context

A number of natural stones and aggregates are commonly found in and/or used across the Kent Downs AONB. These are an important element of the character of the local landscape. For example:

- Flint: always found in tandem with chalk, and is found within and around much of the Kent Downs AONB. Flint has been used first as a tool and then as a building material in the Downs. Because of its irregular form, flint is typically used within walls as a decorative panel, contained by a brick quoin or band. Flints are usually "knapped" to give them a smooth face. The dressing and laying of flint is a specialised trade requiring expert skills and advice.
- Ragstone: a dull, grey stone, still quarried on an industrial scale close to the Kent Downs AONB. Ragstone has traditionally been used in the AONB as a road stone, cobble or sett and as walling blocks. It was very popular for the construction of 19th century churches. As with flint, it is often used within brick quoins and bands. Spalls (small clumps of irregular chips of ragstone) can be used in surface paths or as a general construction aggregate.
- Hoggin: the term given to a mixture of clays, sands and gravels to form a material that compacts well and provides a usable, stable surface for paths and tracks at low cost. Hoggin is not widely available as a construction aggregate, however ragstone gravel can provide an alternative, low cost material for paths and tracks.
- Granite setts: although not a local material, granite has been widely used across the North Downs for setts and kerbs in the construction of roads and other infrastructure projects. Use is usually more associated with urban areas than rural. Where granite is used as part of the existing streetscape it should be reused and restored. New projects adjacent to these areas can extend the use of granite or use alternative, modern reconstituted stone products. These tend to be cheaper, lighter and easier to work with than granite, and are preferable to the use of concrete. Ragstone kerbs are also a possibility for some locations.
- Reconstituted materials and aggregates: traditional materials are not always suitable to modern uses and applications. Generally reconstituted stone and imported aggregates should be the option of last resort. Where they are employed, they should reflect the underlying geology and be similar in colour and tone to the local materials and natural stones and soils. Anti skid surfacing, for example, uses aggregates that are difficult to find in the local geology. Materials however can be specified that reflect local materials such as ragstone gravel.

Further detailed guidance on the use of locally distinctive timber, clay brick pavers and tiles, natural stone and local aggregates, ragstone, hoggin, granite setts, reconstituted materials and aggregates is contained in the Kent Downs AONB Landscape Design Handbook (2005).

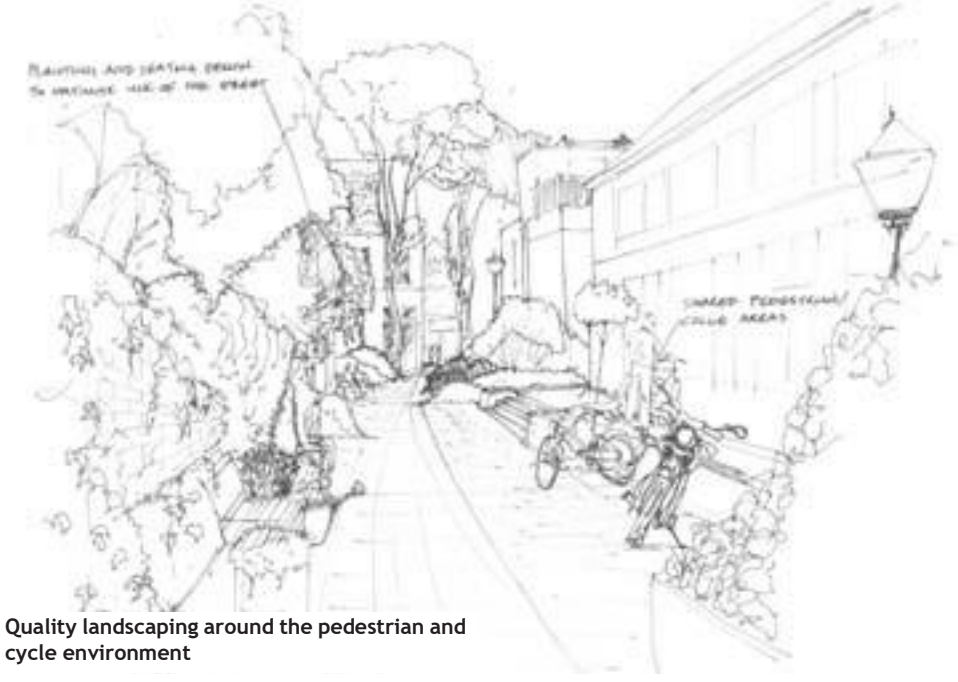
Detailing: Ground Surfaces

Planting

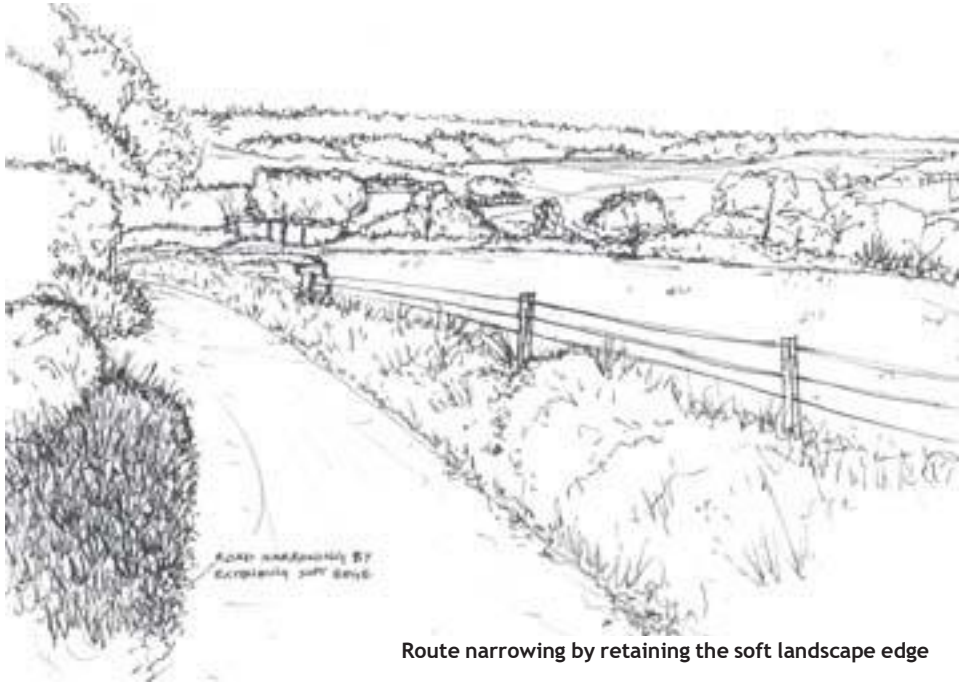
Tree planting and other landscape features can be used to enhance the space between buildings, reinforcing local character and the appeal of the local area. The use of native species of local provenance is to be encouraged and tree and shrub compost should be from non-peat sources.

The introduction of tree planting however needs very careful consideration and, depending on the type of streetscape, e.g. rural lanes, village greens and/or small market squares, different planting principles may need to be adopted. The use of avenue tree planting, groups of trees, or a single specimen tree depends on the townscape context and the history and tradition of places. Sometimes an area can be enhanced by the removal of inappropriate or excessive tree planting. Paving around the base of trees needs careful detailing allowing for the continued expansion and settlement of ground levels. The location of underground services also needs to be taken into account.

Landscaping as an integral part of the streetscape - parking for cycles and cars, seats for pedestrians all brought together with subtle use of planting



Quality landscaping around the pedestrian and cycle environment



Route narrowing by retaining the soft landscape edge

The following table gives an indication of planting species that can be used within streetscape design projects in the Kent Downs AONB.

Planting Species Consistent with Landscape Character Areas	
Dry chalky soils South Foreland, Postling Vale, East Kent Downs, Stour Valley, Hollingbourne Vale, Kemsing Vale, Darent Valley and Medway Valley	
Woodlands (on chalk slopes) Woodlands (in valleys) Hedges and hedgerow trees	Beech, ash, hazel, holly. Local yew, wild cherry and whitebeam Beech, ash, pedunculate oak, field maple and hazel Hawthorn or mixed hawthorn, dogwood, field maple, oak, hazel, holly, wayfaring tree. Local box, privet, spindle and dog rose
Chalky clay soils West Kent Downs, Mid Kent Downs and East Kent Downs	
Woodlands Hedges and hedgerow trees	Ash, pedunculate oak, field maple and hazel Hawthorn, hazel, field maple, pedunculate oak and beech. Local dogwood, wayfaring tree, spindle, hornbeam, ash and bullace plum
Wet waterlogged soils Darent Valley, Stour Valley, Kemsing Vale, Lympne, Hollingbourne Vale and Postling Vale	
Woodlands and scrub	Alder, sallow, osier, grey willow, crack willow, hawthorn and dogwood. Local guelder rose
Sandy acid soils Sevenoaks, Greensand Ridge	
Woodlands Hedges and hedgerow trees	Beech, ash, pedunculate oak, sessile oak, hornbeam, hazel and hawthorn. Birch should regenerate naturally; no need to plant
Heavy clay soils Low Weald	
Woodlands	Pedunculate oak, hazel and field maple, hawthorn, blackthorn, field maple, dogwood. Local guelder rose

From Kent Downs AONB Landscape Design Handbook (KCC AONB Unit, 2005)
Note: the table above is not exclusive and simply gives suggestions for using locally native species in the design of streetscape projects. For each project it will be necessary to examine which native species exist in the local context and use these as the basis for local design.

Street Furniture

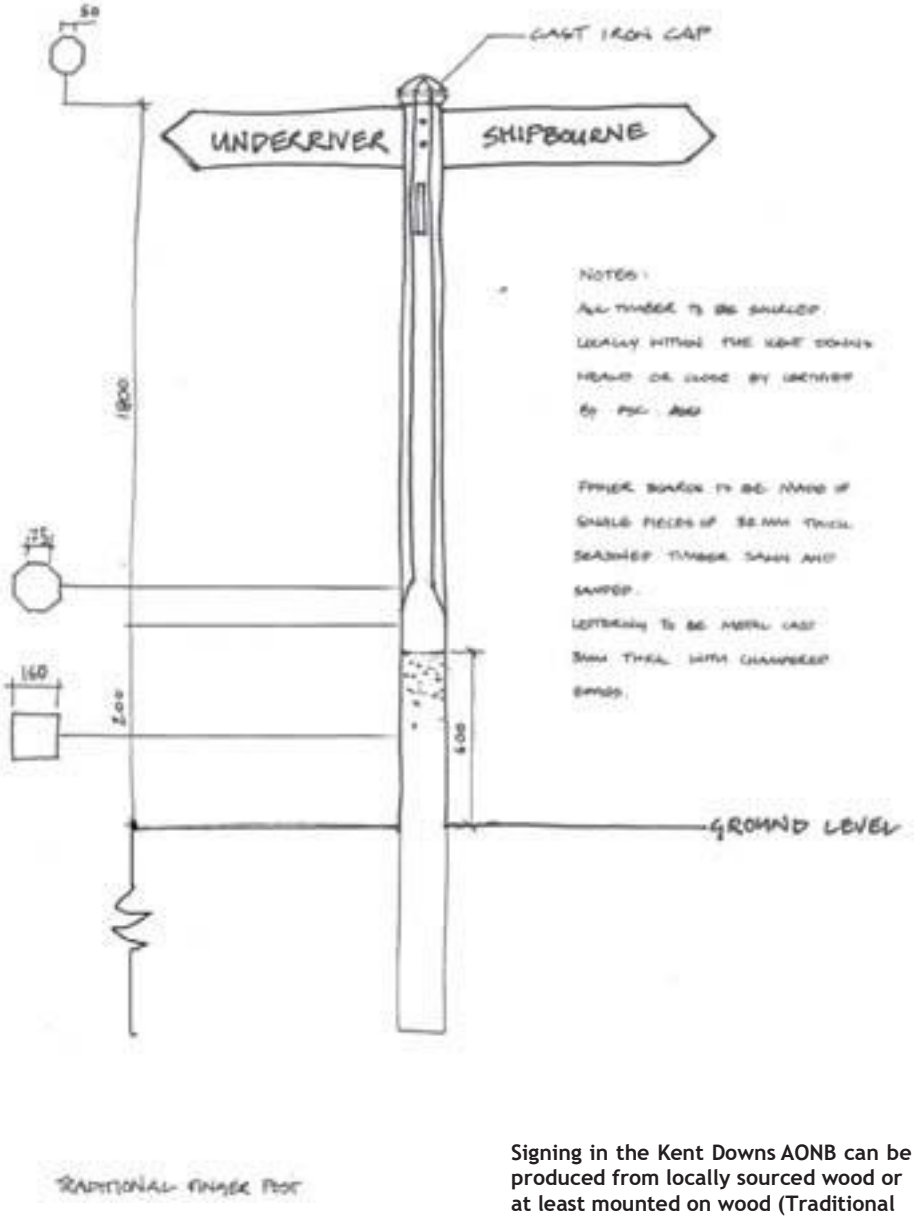
The Kent Downs AONB supports a variety of woodland species that can be used in the design of street furniture. Examples include chestnut coppice, mixed broadleaved coppice and broadleaved and coniferous woodland.

Coppiced woodland predominantly produces sweet chestnut and oak for use in fencing whilst other woodland produces timber for the timber industry (for use such as oak frame construction). Forestry policies are generally seeking to replace coniferous plantations with mixed broadleaved planting which is more in keeping with landscape character and has greater benefits for biodiversity. Wherever possible, street furniture, including fencing, sign posts, benches, bollards, gates, stiles and buildings, should utilise oak and chestnut or other timber produced from locally managed woodland. In the main this will mean using green heart construction grade oak, although intricate items may need to use cured timber (which is more difficult to obtain and more expensive) or treated softwood.

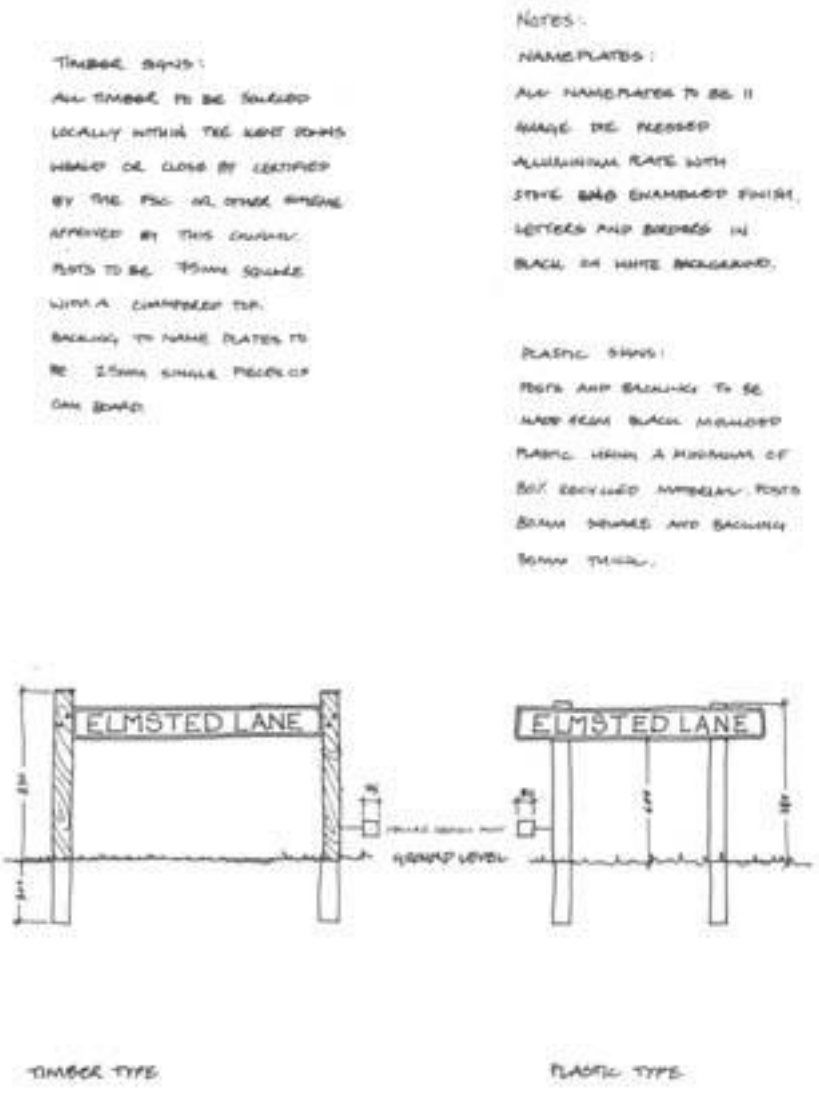
To ensure that appropriate sources of timber are being used, specifications should require that all timber is to be sourced locally, within the Kent Downs AONB or nearby, and certified by the FSC or other approved certification schemes. Recycled plastic signs can also be more environmentally acceptable than other designs.

Clay bricks and tiles are the traditional building materials of the Kent Downs. The colour and texture of clay bricks and tiles varies according to the source of the clay and the manufacturing process used. For projects where bricks or tiles can be incorporated, reclaimed or handmade products are preferable. New clay bricks or tiles can be specified to closely as possible match local colours, patterns or textures.

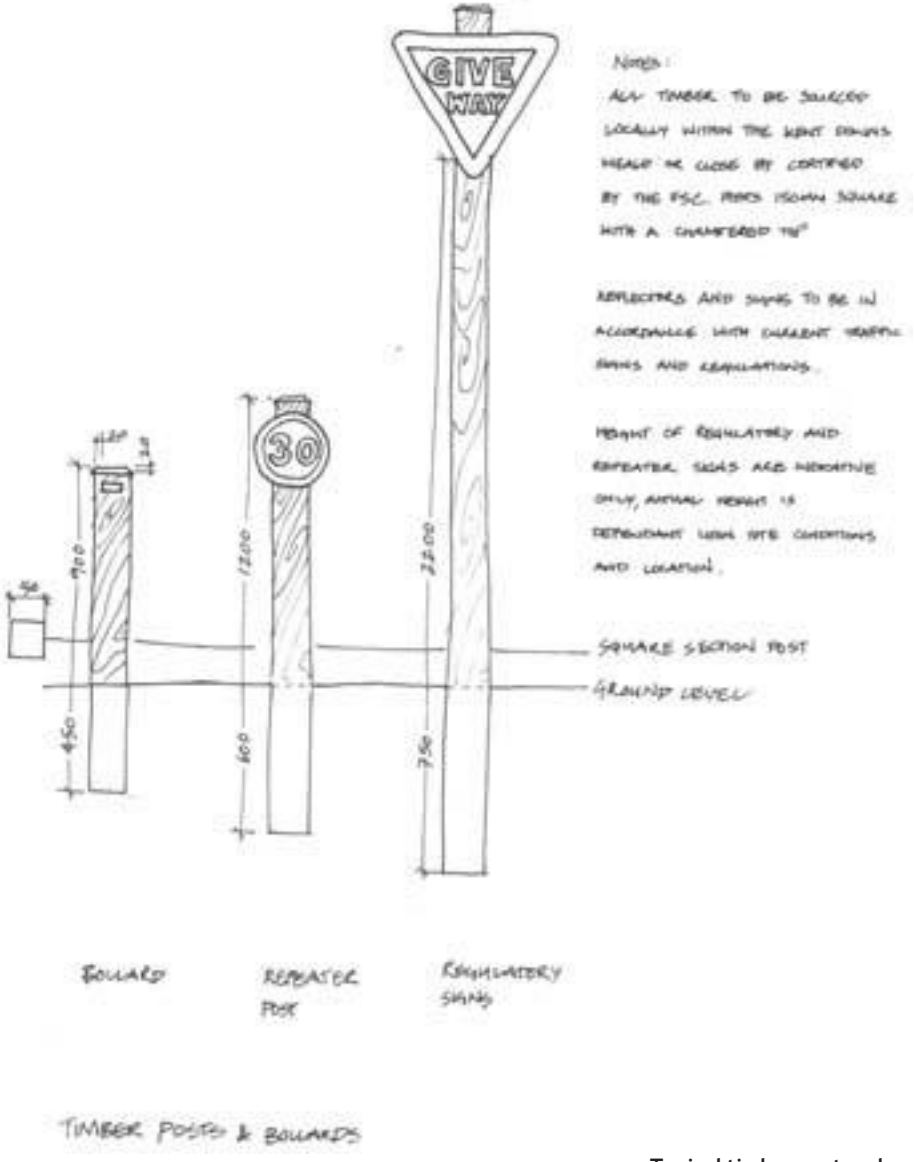
Again more details can be found in the Kent Downs AONB Landscape Design Handbook (KCC AONB Unit, 2005).



Signing in the Kent Downs AONB can be produced from locally sourced wood or at least mounted on wood (Traditional fingerposts, bollards and street name supports)



Typical street name plate dimensions



Typical timber post and bollard dimensions


Frome Valley
Trail
BISHOPS LIMEKILN
PICNIC AREA
DO NOT LEAVE VALUABLES
IN YOUR CAR
PLEASE LEAVE THIS AREA AS YOU
WOULD HOPE TO FIND IT


ROADSIDE
NATURE
RESERVE

5.5 Community Participation

Community participation will be critical in ensuring the design of effective schemes and in encouraging the ownership of schemes. As many as possible of those people and bodies that will be affected should be involved during scheme development. There are a large number of participation techniques on offer – see box. The emphasis should be in generating interest and interaction and in generating a consensus as to the design of the scheme.

The first stage should be to explain the context and requirements for streetscape improvements – to highlight that traffic engineering and design are important to the local character of an area – and that, if done well, can complement and enhance the local built environment and landscape. The second stage is to discuss scheme options, and here emerging techniques such as planning for real days, enquiries by design or design charettes might prove more useful than the traditional traffic scheme exhibitions. The greater the participation and interaction, the greater the likelihood of producing a successful streetscape scheme that is "owned" by the local community.

More innovative techniques can be used to demonstrate the use of psychological traffic calming concepts on the ground – the work of David Engwicht might be the inspiration here – using local events to generate people activity around schemes, or even something as simple as "sock bunting" to mark the entrance to a new streetscape scheme.

Participation Techniques

A number of possible techniques can be used to generate public interest in streetscape problems and design options. These might include:

Briefing/Context Workshop
Working/participatory sessions held at the start of a project to establish the context, project agenda and brief.

Choices Method
A visioning process, usually based on four steps:
1. Meetings within the local community to brainstorm ideas for new streetscape and public realm improvement schemes
2. Consolidation of ideas into goals and vision statements
3. A "vision fair" - where people vote on which future schemes they would like to pursue; potentially involving personal action pledges
4. Setting up of implementation groups to ensure chosen ideas are carried out.

Citizen's Jury
Informal inquiry method where a small group (say 14-16 people), selected to be representative of the local community, spend a few hours examining an issue such as streetscape design, listen to witnesses/expert views and produce a final report covering recommendations.

Design Charrette
Widely used in developing and assessing urban design and masterplanning options, but well suited to streetscape design. Involves an intensive group brainstorming effort and the development of design options and sketches.

Enquiry By Design
Similar process used for developing design options. Originally devised for developing plans for new urban villages but widely used in masterplanning.

For more details and techniques, see Wates (2000) The Community Planning Handbook.

5.6 Project Launch

The final stage of a streetscape design project will be the formal project launch.This will be used to generate media and public interest. A launch event might naturally follow on from the exercises carried out during scheme consultation, but with additional media interest, depending on context. A scheme launch date should be arranged well in advance, potentially with press releases sent to the local papers and interested stakeholders. As part of the launch it will be useful to consider ongoing maintenance issues and responsibilities, along with monitoring responsibilities.These issues should have been considered throughout the project – and responsibilities clarified – but they are worth reconfirming here.

We hope this rural streets and lanes handbook for the Kent Downs AONB has inspired you into pursuing your own project.The rewards are likely to be great -in economic, social and environmental terms. Better streetscapes can lead to a much improved quality of life and civility in the Kent Downs. Good streets can act as“theatres of life”;they deserve to be more than simple traffic thoroughfares.

The concepts of contextual design and shared space have been important to the preparation of this handbook and it is hoped that the Kent Downs AONB develops some streetscapes that reflect the best of practice.There is much intrinsic quality to work with as the basis for new streetscape enhancements.The time now is to create streets as unique living spaces. The continuing lifeblood and competitiveness of the Kent Downs AONB as a place of special character is reliant on maintaining and enhancing its special character.

Annex

Annexes

Annex 1: Study Team
Annex 2: Useful Contacts
Annex 3: Legal Framework
Annex 4: Overseas Case Studies
Annex 5: Selected References

Annex 1: Study Team

This Rural Streets and Lanes Design Handbook has been prepared for the Kent Downs AONB Unit and Kent County Council by the Halcrow Group. It has been funded by the Countryside Agency and European Regional Development Fund (INTERREG 3A)

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DTP design Phil Wiseman

The Kent Downs AONB

The Kent Downs Area of Outstanding Natural Beauty is a nationally protected landscape. It covers about a quarter of Kent including the North Downs and areas of the Greensand Ridge and Romney Marsh.The Kent Downs landscape is characterised by its dramatic chalk downs, secluded valleys and stunning views. A closer look uncovers a wealth of distinctive villages, a network of tranquil lanes and historic hedgerows, ancient woodland, traditional orchards and traditional farming landscapes.

Halcrow Group Ltd

Halcrow specialise in the provision of planning, design and management services for infrastructure development worldwide. The company is one of the UK's leading consultancies, with a pedigree stretching back to 1868.The Halcrow Group employs over 8,000 staff in 29 UK and 32 international offices. Approximately 300 staff are transport planners, urban planners and landscape designers based in the UK.

The energies, experience, and knowledge of our staff make Halcrow distinctive. We provide an environment where creative ideas, originality, and innovation can flourish. Many of our staff combine skills and experience in more than one subject field. We specialise in multi-disciplinary thinking. In summary, we provide:

- Expertise in transport planning, policy research, transport economics and traffic engneering;
- Public policy advice, spanning transport, land-use and the environment, including corridor development, accessibility planning, urban strategy and policy studies, urban design, environment and ecology, and institutional strengthening and capacity building;
- Expertise in urban metros, road pricing, public transport operations, and tolled highways;
- Support for the group's engineering teams, taking projects through to implementation;
- Project management expertise, managing complex multi-disciplinary commissions, and providing assurance of timely and appropriate project outputs.

Hamilton-Baillie Associates

Hamilton-Baillie Associates provide specialist knowledge and experience of innovative solutions for reconciling traffic movement with quality public spaces in cities, towns and villages.

Based in Bristol, Hamilton-Baillie Associates provides practical advice and policy develop ment work to combine urban design, traffic engineering and safety improvements. Current clients include highway authorities, government agencies, developers, community groups and design teams in architecture, urban and landscape design, planning, regeneration, transport and traffic engineering.

Hamilton-Baillie Associates' work draws on extensive research and observations of best practice mainland Europe, North America and across the UK. Ben Hamilton-Baillie is one of the three advisory experts on "Shared Space" for five European countries developing a range of practical projects to explore innovative street design. He is also consultant to English Heritage for their "Streets for All" guidebook and "Save our Streets" campaign.

Annex 2: Useful Contacts

For further advice and guidance you may wish to contact the following organisations:

Civic Trust: http://www.civictrust.org.uk

Commission for Architecture and the Built Environment:

http://www.cabe.org.uk

Department for Transport: http://www.dft.gov.uk

English Heritage: http://www.english-heritage.org.uk

English Historic Towns Forum: http://www.ehtf.org.uk

Department for Communities and Local Government: http://www.communities.gov.uk

Institute of Highways and Transportation: http://www.iht.org

Landscape Design Trust: http://www.landscape.co.uk

Landscape Institute: http://www.landscapeinstitute.org

Living Streets: http://www.livingstreets.org.uk

Royal Town Planning Institute: http://www.rtpi.org.uk

Sustrans: http://www.sustrans.org.uk

Town and Country Planning Association: http://www.tcpa.org.uk

Transport Planning Society: http://www.tps.org.uk

Urban Design Alliance: http://www.udal.org.uk

Urban Design Group: http://www.udg.org.uk

Local Authorities and Agencies

Ashford Borough Council: http://www.ashford.gov.uk

London Borough of Bromley Council: http://www.bromley.gov.uk

Canterbury City Council: http://www.canterbury.gov.uk

Dover District Council: http://www.dover.gov.uk

Environment Agency: http://www.environment-agency.gov.uk

Gravesham Borough Council: http://www.gravesham.gov.uk

Kent County Council: County Hall, Maidstone, Kent, ME14 1XQ
http://www.kent.gov.uk

Kent Wildlife Trust: Email: info@kentwildlife.org.uk

Maidstone Borough Council: http://www.maidstone.gov.uk

Medway Council: http://www.medway.gov.uk

Sevenoaks District Council: http://www.sevenoaks.gov.uk

Shepway District Council: http://www.folkestone-

hythe.gov.uk

Swale Borough Council: http://www.swale.gov.uk

Tonbridge and Malling Borough Council: http://www.tmbc.gov.uk

Annex 3: Legal Framework

A very useful but unsnappily titled document called "Highway Risk and Liability Claims. A Practical Guide to Appendix C of the Roads Board Report – Well Maintained Highways. Code of Practice for Highway Maintenance Management" has been published by the ICE and UK Roads Board (December 2005). More can be found on http:///www.ukroadsboard.org.

The guide provides the current position on highways liability arising from maintenance, views on best practice and legislation.

Each year there are over 4 million incidents on the highway, ranging from fatal accidents to minor falls or damage. Over three quarters of these were solely due to human error. A small proportion of these incidents involve individuals who believe that the highway authority is wholly or partly responsible.

The courts have repeatedly asserted the responsibilities road users have for their own safety. Road users have a responsibility to use the road as they find it. This defines the road user as an intelligent human being, able and expected to exercise their own judgement. It is not necessary for the design of a scheme to take that independence of judgement out of the hands of the road user. The highway authority on their part should avoid creating a trap for road users and should not act irrationally.

Highway authorities should therefore ensure that in the design of new schemes procedures are in place to explain the rational, balanced decisions made, and to create an audit trail that could subsequently be used as evidence in court.

Suggested approval procedures for larger and more sensitive projects are therefore to:

1. Set up clear and concise scheme objectives
2. Work up the design against objectives
3. Review by expert panel including the results of safety audits
4. Sign-off by elected members with vested powers

A complementary approach for minor schemes is as follows:

1. Set specific scheme objectives if appropriate
2. Work up the design against objectives
3. Senior manager to review design, including results of safety audit, and make decisions where there a re conflicts. The manager can take a holistic view, bringing in specialist advice where necessary.

A modified safety audit should include consideration of risk factors, quantification of risk and evidence/justification.

Annex 4: Overseas Good Practice Case Studies

A number of good practice streetscape design case studies are summarised in the following pages.They are drawn from continental Europe, particularly from the province of Freisland in the Netherlands. Hans Monderman has often been the inspiration for these streetscape design schemes. Many of the ideas found within these schemes are applicable to streetscapes within the Kent Downs AONB, and indeed further afield in the UK. UK based case studies are given within Chapters 1-4 of this document.This section summarises the relevant continental European experience only.

Case Study: Drachten,The Netherlands

Drachten is a good practice example of urban streetscape design, and yet there are lessons to be learnt from the city that can be applied in a rural context. Hans Monderman was also responsible for the shared space featured here where lines and road markings have been removed, resulting in behavioural change by all road users; motorists, cyclists and pedestrians.The resulting change in people's perception of risk has encouraged road users to manoeuvre across junctions with more care.This is likely to be especially important in rural villages where highway traffic interacts with local traffic.

The main street through Drachten has a wide pedestrian area to either side, adjacent to the building frontage of shops. Between these there is a cyclist priority area shared with cars.There is a sloped kerb between the pedestrian area and the cyclist priority road area, and the roadways and footways are demarcated by trees and lampposts. Shared surfaces are also a key feature in this public realm.

Case Study: Haren,The Netherlands

At either end of the town of Haren, there is a fully shared space area, with no road markings or marked pedestrian area. Between these two areas there is a narrow stretch of road with wide pedestrian footways, adjacent to shops and other premises.There are no kerbs along the entire stretch of shared space, and the surface is demarcated with the use of red brick paving (for pedestrians) and black surface treatment (for vehicles). Barriers and trees are intermittently dispersed along the edge of the footway, but these are not continuous.

The use of shared surfaces provides a pleasant environment for this high street that emphasises place over movement, while the fully shared areas at either end of Haren give an indication to drivers that this area is shared by motor vehicles, cyclists and pedestrians, and to reduce speeds accordingly.

Case Study: Delft,The Netherlands

In 1969 the Municipality of Delft, which was considering redesigning and upgrading road surfaces in inner-city locations, decided to implement Niek De Boer's ideas in some of the lower-income neighbourhoods where more child play areas were urgently needed, but which lacked play sites. With resident participation, the designs integrated sidewalks and roadways into one surface, creating the impression of a yard.Trees, benches, and small front gardens further enhanced the space.

The streets became known as a "Woonerf", or "residential yard" (in the UK similar areas to woonerven are known as homezones, and in Germany as verkehrsberuhigung). The residential areas shown below adopt some of these principles, retaining the kerb and pavement to separate pedestrian and vehicular traffic. The design of the streetscape featured is one that promotes shared use, with wide footways for pedestrians and cyclists, interspersed with dropped kerbs at crossing points and street furniture that enhance rather than detract from the overall environment. Cycle racks are prominent, reflecting the importance of cycling in Delft, and also benches, planters and bins.

Case Study: Hennef, Germany

Frankfurter Strasse, the main road through Hennef, is part of the national road system and was a typical main road, designed to serve traffic travelling through the town, while the needs of people travelling on foot or bicycle were secondary.The Frankfurter Strasse was redesigned in 1989 to create a safer and more pleasant environment for the various users of the street in which priority is given to pedestrians and cyclists.

The carriageway was reduced in width and a paved strip of granite cobbles installed along the centre of the road, providing a central refuge for pedestrians to cross the road where they wish. In some places there is a one metre wide granite cobble strip between the carriageway and the footway.This provides a 'safer first step' for pedestrians because drivers steer away from the cobbles.The granite cobble strip also encourages drivers to slow down as they find themselves closer to oncoming traffic. All parking is in defined, metered bays at footway level; and cyclists benefit from the reduced speeds of traffic and also have the choice of an advisory cycleway, at walking speed, on the footway.

Case Study: Makkinga,The Netherlands

Makkinga is a small village, in the province of Freisland in The Netherlands, with a central high street running through it.The high street is used by people passing through the village and by children getting to school. Local traffic engineer Hans Monderman used Makkinga as his first example of removing road signs, markings and signals.The scheme has been successful in safety and design terms; car drivers and pedestrians appear to successfully read the village context and adapt their behaviour accordingly.

Specific features include the block paved road surface with rumble strips providing informal crossing points for pedestrians. Signs and road markings relating to traffic have been removed, and the footway is now almost level with the highway and subtly segregated from traffic by bollards. Roundabouts are unsigned, but comprise raised block paving in a contrasting colour to the rest of the carriageway to slow drivers. Items of street furniture (street lamps, benches and boulders), coloured awnings on the houses and garden foliage can also create a psychological narrowing effect (a vertical deflection) for drivers to help slow traffic, particularly where there are pedestrian desire lines and footpaths. Monitoring shows that casualties have fallen by 10 per cent in three years since the redesign, and traffic speeds have been significantly reduced to less than 30kph (Transport 2000).

Case Study: De Dijk / Stijp, Rijswijk,The Hague,The Netherlands

Rijswijk is a suburb of The Hague, located in Western Netherlands.The suburb includes some very attractive residential streetscapes, again demonstrating the merits of shared space and shared surfaces.

Different surface materials are used to demarcate car parking areas; pavements and kerbs are removed. Many of the schemes demonstrate how residential estates can be designed to be inclusive for all road users, providing a pleasant streetscape environment. Building height, road width and trees, together with 'herringbone' parking provide design measures by enclosing the distant view and help to slow traffic.

Case Study: Colone,The Netherlands

Colone provides another example of urban streetscape design that could be applied to rural areas. Although not as widely publicised as Drachten, similar design principles have been adopted, including the removal of extraneous road signs, lines and signals. Shared surfaces are a regular feature, allowing for ease of pedestrian movement, and those with mobility impairments (wheelchair users, baby buggies, etc). Simplified streetscapes such as these help maintain pedestrian desire lines and can alleviate the severance effect of roads, particularly at intersections. Usually no clear priority id given and road users must rely more heavily on informal social interactions and subtle visual cues.

Street furniture, and in particular bollards, remain a feature in the streetscapes pictured in this case study. Arguably, these measures for delineating between the roadway and footway are unnecessary in a shared space environment. However, shared surfaces can prove problematic for blind and partially sighted people, if poorly designed, especially where the separation between motorised vehicles and pedestrians (typically the pavement and kerb) is removed. Hence, above surface features such as bollards, planters, trees and benches can aid navigation for visually impaired people.

Case Study: Rijswijk Woonerf, The Netherlands

De Boer designed streets so that motorists would feel as if they were driving in a garden setting, forcing drivers to consider other road users. This woonerf in Rijswijk is a prime example, with its tranquil streets paved with Dutch bricks, cobbles and paviours. Cars are parked in offset groups shielded by trees, which themselves become the dominant feature of the street. Speed cushions are discrete, and carefully planned into the overall street design, which includes a multiplicity of uses, including children's play spaces. Well planned seating is provided, play areas are separated from the carriageway and there is an absence of signs and road markings. Street paving patterns have been designed to emphasise the 'place' nature of junctions, and deliberately eschew any reference to the carriageway. The closed views down the streets give an intimacy to the area, and also serve to reduce traffic speeds.

Case Study: Steenvoordelaan,The Netherlands

The lesser well known Steenvoordelaan has also introduced pedestrian and cycle friendly street designs to aid navigation and interaction with car drivers, including colour contrasted paving and a partially shared surface to differentiate between pedestrians, cyclists and vehicles. Some traditional crossing features such as Zebra crossings are still utilised and dropped kerbs are widely used with minimal signage.The photograph below shows the use of a drainage strip, which is a necessity for shared surface environments, given the absence of a camber across the roadway to direct surface runoff.

Case Study:Wateringen,The Netherlands

Wateringen demonstrates the use of simplified streetscapes in residential areas, adopting the generic principles of shared space.The main design features include the visual break up of lengths of road, visual and physical road narrowing, limiting of forward visibility, reducing sightlines to increase driver awareness, and the removal of white lines in conjunction with physical narrowing at parking bays to create uncertainty.

Case Study: West Wartier, The Netherlands

The West Wartier "Woonerf" includes a reduction in the use of raised pavements and kerbs, a variety of surface treatments suited to a pedestrian environment, the use of trees, seating, planting and street furniture to define and screen car parking, the use of bollards and street lighting to define space, and the use of simple 'gateways' at entry points.

West Wartier also features a playground at the roadside (albeit one that is separated from the road by a kerb and fence). A key characteristic of this woonerf is to enrich the neighbourhood with features that encourage interaction and emphasise the streetscape for its place function, rather than movement.

Case Study: Ypenburg, The Netherlands

The residential suburb of Ypenburg is better known as the Watervijk project, and is demonstrative of how residential developments can be achieved alongside shared space principles.The main access road to the development comprises a shared surface of brick paving, with drainage channels on either side of the carriageway, which also provide a narrowing effect for users.There is also an access bridge onto the estate with an entry sign indicating that the area is for shared use by cars, pedestrians and children playing. Both vertical and horizontal deflections have been avoided here. Rather, the street design is straight and narrow with courtyards provided for residential parking, and signage, lining and street furniture almost completely absent, with the exception of occasional street lamps.

Case Study: Oosterwolde,The Netherlands

Oosterwolde is a town which used to have a busy intersection controlled by traffic priority rules and traffic islands.The intersection is located in the centre of town where people shop, where bus stops are situated and where traffic enters and leaves town.

Hans Monderman used the same approach to transform the highway in Oosterwolde into one where all traffic control features, including priority signs and road markings, have been removed. In addition, the edges of junctions have been kept square and there is no discernible footway; the junction has been redesigned to resemble a public square, using brickwork instead of asphalt; and the 'square' is used far more as a public space, with the extension of street cafes and seating areas. Without formal rules and priorities, the town's public space has become more child friendly, with reduced speeds and casualties, despite functioning as a five-way traffic intersection.The street shown below also features a winding pattern on the road, using contrasting coloured brick paving, which is aimed at slowing drivers down. The streetscape design demonstrates that a space designed primarily for traffic is potentially hostile to social activities; however, a space designed primarily for social activities can easily co-exist with traffic but in a far safer way

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