

Traffic calming in Kemerton and Overbury



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Executive Summary



As our roads become busier, which is a national issue, Kemerton Parish Council in partnership with Overbury Church of England First School and Overbury Parish Council feel that it is becoming increasingly important to protect our rural way of life and in particular, find some way to influence the negative impact of increasing volumes of traffic that pass through our communities.

Traffic flows are eroding peaceful country routes, this is giving rise to increasing concern amongst our residents relating to the preservation of our Area of Outstanding Natural Beauty (AONB) and also is promoting anxiety about road safety, particularly for local school children.

Kemerton's parish council and Overbury C of E First School, in addition to Overbury Parish Council have therefore been jointly investigating the possibility of introducing some traffic calming measures with the two villages. This document summarises our findings and propositions on the subject.



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THE VILLAGES AND THEIR ISSUES WITH TRAFFIC

Principal issues that exist in our villages include;

Kemerton

- Concern that as local areas become more developed, the village becomes a 'rat run' to avoid major trunk road congestion
- Excessive vehicle speed through the entry and exit points to the village (marked * on the line drawing of Kemerton village)
- Excessive vehicle speed at a sharp corner by the Village Hall, where a daily children's preschool nursery is held – creating a safety issue for parents and other village hall users
- Excessive speeds at a triple road junction, (High Street, Kinsham Lane and Jobs Lane) marked ** on the line drawing of Kemerton village
- A mobile Vehicle Activated Speed (VAS) camera utilised in the village for the past 12 months has indicated that at the Bredon end of Kemerton, an average of 788 vehicles per day exceed the speed limit through the village. (see statistics overview Appendix)
- At the Overbury end of Kemerton the number of vehicles exceeding the limit is 349 vehicles per day and even in the middle of Kemerton, 177 vehicles per day exceed 30mph

Overbury

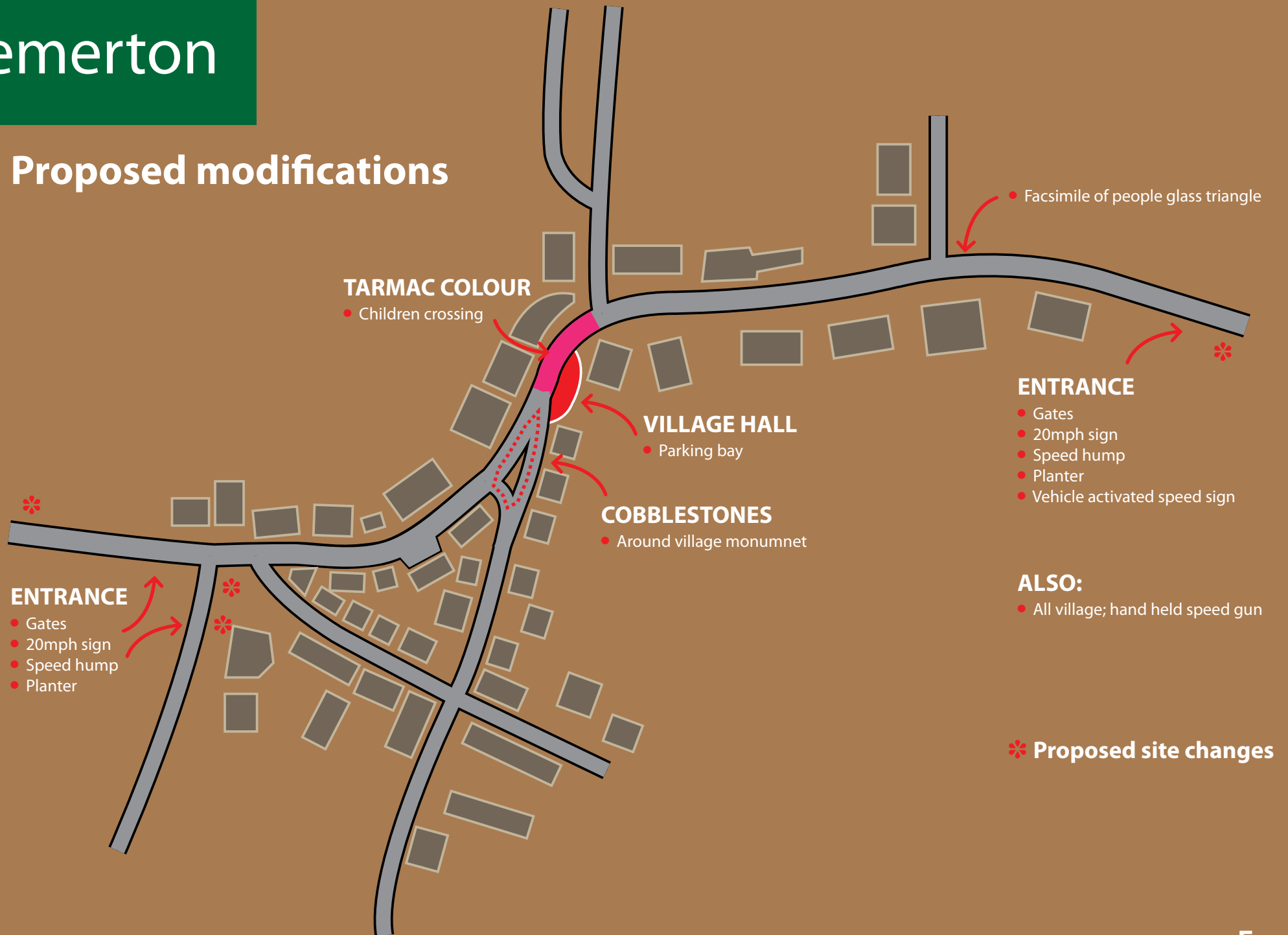
- Concern that as local areas become more developed, the village becomes a 'rat run' to avoid major trunk road congestion
- Excessive vehicle speed through the entry and exit points to the village (marked * on the line drawing of Overbury village)
- Excessive vehicle speed through Overbury, the road is relatively straight and there are few structural restrictions to hinder vehicle speeds
- Excessive vehicle speed past Overbury school, where children cross – visibility is not ideal with a blind rise and a corner hindering safety (marked *** on the line drawing of Overbury village)
- Excessive vehicle speed where there is poor visibility at the junction of main road and Crashmore Lane (marked ** on the line drawing of Overbury village)

Kemerton



Kemerton

Proposed modifications



Overbury



Overbury

Proposed modifications

* Proposed site changes

ENTRANCE

- Gates
- 20mph sign
- Speed hump
- Planter
- Vehicle activated speed sign

- Village triangle
- Facsimile of people

- Road surface
- Change school crossing
- Illuminated sign

ENTRANCE

- Gates
- 20mph sign
- Speed hump
- Planter
- Vehicle activated speed sign

CRASHMORE LANE

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KEMERTON

Kemerton is a village and civil parish in Worcestershire. It lies at the extreme south of the county in the local government district of Wychavon. The northern half of the parish lies within the Cotswolds Area of Outstanding Natural Beauty (AONB).

Notable historic features include Kemerton Camp, an Iron Age hill fort surmounting Bredon Hill, thought to have been vacated suddenly after a considerable battle.

The village of Kemerton was known as Cyneburgincgtun in 840 AD. Charmingly situated on the south side of Bredon Hill, the village was in Gloucestershire until the boundary changes of 1933.

Kemerton's former parish church was demolished and rebuilt in 1848 after much controversy in the Victorian Gothic style. The old building was reputed to have been in very poor condition and the demolition was the work of the then rector, Archdeacon John Thorpe. Only the medieval tower remains of the original church. Today this may be considered a 'crime against heritage'. But at least Kemerton's original church can be seen in a photograph which hangs in the present church. The old church had an interesting and rather unusual feature for a parish church – there was a small room above the porch which was used as a priest's chamber. The Roman Catholic church is dedicated to St Benet. It was consecrated in 1843. St Benet's has some of the finest old vestments in the country.



One of Kemerton's most notable buildings is the Crown Inn. This one-time coaching inn and alehouse has its origins in the 18th Century, with its floor partly of slabs and its listed stone fireplace and wooden beams. At one time there was an interconnecting door to the adjoining property. This almost certainly provided the accommodation for travellers as adjoining the property was a hire business offering waggonettes and hunters for hire.

The village school, built in 1847 at a cost of £700, was closed in 1965 and converted into flats. The young children of the village now go to the neighbouring village school in Overbury.



Kemerton village hall, a focal point for residents, was completed in 1902 and named in memory of Queen Victoria. Kemerton also has a post office and a thriving general store

The village lays claim to some of Bredon Hill's most important archaeological features. Kemerton Camp and the Bambury Stone are both within this parish, as is Bell's Castle, built by a sailor (or rather a pirate or smuggler), Captain Edmund Bell, in 1825, with his criminally obtained wealth. He transformed a row of labourers' cottages into what is now a very fancy large house with battlements and turrets.



Many legends exist about Captain Bell's smuggling activities. It is believed he preyed on French ships and had his loot smuggled up river to Bredon and taken up the hill by packhorse or secret tunnel. It is said that Captain Bell's more illegal activities were brought to the attention of the law and he was hanged in 1841. Bell's Castle is now a private residence.

At the highest point on Bredon Hill is a square tower known either as Parsons' Folly or the Summer House. This folly was built by Mr Parsons of Kemerton in the 18th Century and can be seen for miles around. Each Good Friday, pilgrims from villages all around Bredon Hill climb the hill for a short service on top of the hill next to the tower.

The population of Kemerton is 400, this is a mixed rural community with a strong base of agriculture in its history. The parish is approximately 3.6 miles long by 0.7 miles wide and encompasses approximately 1,665 acres. It descends from the summit of Bredon Hill in the north, (elevation 300 m / 981 ft) to the Carrant Brook in the south (elevation 20 m / 65 ft). The north and south parish boundaries are recorded in a Saxon charter of the 8th century.

The parish includes several important wildlife sites including the Kemerton Lake Nature Reserve and sections of the Bredon Hill Special Area of Conservation, which are managed by Kemerton Conservation Trust. Well known residents of Kemerton have included the anarchist publisher Charlotte Wilson and the bestselling author John Moore.

Kemerton is widely recognised as one of the most historic and picturesque parishes in Worcestershire. It now boasts an exceptional built heritage, with two thirds of its buildings dating from before 1850, and 41 (out of 196) listed buildings.

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OVERBURY



Overbury, formerly 'Ovreberie', is situated on the lower southern slopes of Bredon Hill, around a stream which has provided water for the houses and farms and power for the former mills over many centuries. This small and pretty village with its Cotswold stone cottages and carefully tended gardens is essentially an "estate village" with its connections to Overbury Court.

The court has had a connection with the Holland-Martin family since 1723 when John Martin took up residence there. The present building was erected after the old Elizabethan manor house was burned down in 1738.

Almost all of the houses in the village are owned by the estate, which farms the surrounding land as well. The village at one time had a number of thriving businesses which included a

shop and six mills engaged in paper making, flour production and silk processing. In the last century there was always plenty of work available on the estate, in farms, gardens and houses for all who lived here.

Before the First World War the village was cared for in a very real way by the Martin family. The children at Overbury Church of England School, built in 1877, were provided with clogs and cloaks, a good soup once a week in winter, and plenty of prizes to encourage excellence in class.

Village entertainment included plays, whist drives and dance in the village hall and 'Pleasant Sunday Afternoons' organised by Lady Martin when anyone could go to the village hall to hear a speaker or just have a chat.





Overbury Church of England First School is a voluntary controlled Church School in the local education authority of Worcestershire. It is a school that feeds Bredon Hill Middle School where children continue their education in Key Stage 2 and into Key Stage 3. The school has 70 places for children aged from 4 – 10 years.

St Faith's Church is Norman in origin and its Lychgate is a memorial to those from Overbury and Conderton who died in the two world wars. An unusual feature of the church is its concealed dovecote. Hidden from view from both the outside and the inside, above the chancel there is room for 200 pigeons. It is thought that this originates from the time when the church owned the manor and as a result had the right to keep pigeons.

Overbury Flower Show was a great annual event, prizes including best kept pigsty.

Today much has changed, although there remains The Overbury Estate which employs many of the villagers.

The school and church remain, but gone are the village pub, the Star Inn, the policeman and vicar, with church services shared with other villages. There is also a busy children's day nursery 'Grasshoppers' constructed in the past decade.

The thriving cricket and bowls clubs are patronized by villagers and those from nearby areas. The annual street market is well supported.

The fabric of the village is still well cared for by the estate and the place has an immaculate appearance. As machines have replaced people in both domestic and farm work, so fewer people are employed by the estate and occasionally a cottage becomes available to an outsider.

The village has been able to break away from the feudal atmosphere and support a wide cross-section of the community.



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TRAFFIC CALMING What is it?

Traffic calming as a concept has been investigated and introduced widely across northern Europe since the 1930's, initially in Germany and Holland as well as further afield in Australia. In the UK there have been many initiatives over the past decade to reduce the pace of traffic through both urban and rural areas which have enjoyed a measure of success.

Initially, traffic calming was applied to certain areas of towns and particular shopping streets, but this has now been extended to main traffic arteries and also villages. Traffic calming schemes seek to ease the impact of traffic on minor and residential roads in an area.

How does traffic calming work?

Traffic calming involves a range of 'in road' and adjacent to the road related features that enhance the interest for drivers passing through the villages. Scientific studies have shown that if a driver has heightened visual interest (described as 'cognitive load') in the environment through which they are passing, then their perception of time alters in order to take in an interesting feature, such that they slow their driving.

Where has this worked already?

Examples of just a few villages in the UK where a broad range of successful traffic calming has been incorporated into local planning include:

- 1 West Meon (Hampshire)
- 2 Bibury (Gloucestershire)
- 3 Dunster (Somerset)
- 4 Lockeridge (Wiltshire)
- 5 Gotherington (Gloucestershire)

Detailed information produced by Bristol based transport, traffic and urban design consultancy, Hamilton Baillie summarises the way that a range of projects have worked in these villages. See their website on www.hamilton-baillie.co.uk

What are some traffic calming techniques?

General

Traffic calming schemes generally incorporate a wide range of measures designed to complement each other in both speed reduction and environmental terms. Schemes are designed to be self-enforcing, although the effectiveness of this varies according to the measures employed. The principle techniques used fall into five areas:

- Vertical deflections (road humps, plateaus, cushions and rumble strips on the road)
- Horizontal deflections (chicanes)
- Road narrowing (at specific points eg entry and exit to villages)
- Central islands (in the road, in addition to street furniture to draw attention to interesting features)
- Other methods (for example, facsimiles of real people near points of interest)



The effects of these measures may be reinforced by a range of supporting measures, as below.

- Supporting measures (A number of supporting measures are commonly used to back up the speed reducing techniques. The use of different surface materials, the planting of trees, 20mph speed limit signs and the use of facsimiles of children and adults near points of interest.)

There are 3 “E”s that traffic engineers refer to when discussing traffic calming: engineering, (community) education, and (police) enforcement.



A BIT MORE DETAIL

Vertical deflections

Raised areas (plateau), flat top road humps and cushions are effective speed reducing measures. Approaches can make use of an uneven road surface which is useful for slowing down traffic, particularly HGVs.

Horizontal deflections

This technique involves narrowing the carriageway that all traffic that moves through the chicane has to deviate from a straight ahead path. This measure is fairly effective in reducing the speed of straight through traffic, however priorities may become confused as the boundaries of the chicane are sometimes less recognisable.

Road narrowing

An area of road narrowing may be reduced by building out the footways. Tree planting, gateways and marker posts have been used in addition to building out footways to mark the entrance to villages. The entrance to a traffic calmed area requires special attention to make it clear to drivers that the area they are entering has speed restrictions and conditions very different from the surrounding network.

Central Islands

The provision of islands in villages has only a limited effect on vehicle speeds. They will however improve the situation for pedestrians by creating a refuge, although by reducing the amount of carriageway they may hinder large vehicles passing through.

Other methods and supportive systems

Some villages have adopted the use of human facsimiles near the road. These are very lifelike and may be children playing, farmers carrying a load or policeman with a reflective jacket and a raised hand. All have been shown to lead to traffic slowing.

Supportive systems can include the introduction of a 20mph zone, with associated signage, rumble strips, a change in the colour of the road surface or a change in texture to enhance a particular feature (eg war memorial or an historic feature).

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WHAT LEGISLATION IS THERE IN THE UK IN RELATION TO THIS?

6a - Extract from dept transport research paper March 2007

The Rural White Paper 'Our Countryside: the future – A fair deal for rural England' (DETR & MAFF, 2000a) link to this site; www.gov.uk/government/uploads/system/uploads/attachment_data/file/70662/ltn-1-07.pdf sets out how in rural areas traffic calming can help to reduce the impact of through traffic in villages and can help to make rural roads safer for recreational use by walkers, cyclists and horse riders. Encouraging recreational use of the countryside is one of the elements in supporting diversification in the rural economy in order to preserve rural services.

The 'speed policy review' recognised road humps, chicanes and other road engineering measures as currently the most effective method of reducing vehicle speeds in urban (and some rural) areas. It found that there was no evidence that, when negotiated at sensible speeds, these cause damage to vehicles. However, along strategic routes for emergency services, consideration needs to be given to the most appropriate design that can minimise delay to emergency services while at the same time reducing and controlling the speed of other vehicles. A similar consideration needs to be given to bus routes.

The paper outlined that speed and accident reduction are not the only valid objectives leading to the introduction of a traffic calming scheme. Other objectives may include encouraging non-motorised users, improving the local environment and reducing community severance. All objectives should be clearly stated at the outset and should tie in with both the authorities' strategic objectives and the needs and desires of the relevant stakeholders. A traffic calming scheme can provide an opportunity for the local community to get involved in the redesign of their street.

The safety strategies should include speed management to achieve safe vehicle speeds on all roads, and ensure that the speed limits set are appropriate, consistent and enforceable. Traffic calming measures should be employed to encourage both speed reduction and compliance with the limits. Particular attention will need to be given to locations where child casualties occur, including roads around schools, the routes children use to get to and from school and residential areas where they are more likely to play, walk or cycle unsupervised. The Travelling to School initiative is encouraging schools and local authorities to put in place travel plans, which may contain traffic calming measures.

6b – 13th October 2010; Guidance as to legislative authority for traffic calming measures has been developed for Members of Parliament in the discharge of their Parliamentary duties.

URL link - www.parliament.uk/briefing-papers/SN03437.pdf

6c - COTSWOLDS AREA OF OUTSTANDING NATURAL BEAUTY (AONB)

The primary purpose of AONB designation is to conserve and enhance the natural beauty of the UK's most outstanding landscapes. The Countryside and Rights of Way Act, 2000 (Part IV) confers equal protected status on AONBs as on National Parks, with relation to conserving and enhancing natural beauty.

It also gives very strong powers to planning authorities to enforce this. It further places a statutory duty on planning authorities and public bodies to "have regard to the purpose of conserving and enhancing the natural beauty of the AONB". It is worth noting that this statutory duty relates to any matter which may "affect land in an AONB" and can thus extend beyond the boundary of the AONB itself.

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EFFECTIVENESS OF TRAFFIC CALMING MEASURES – DO THEY WORK?

Speed reduction

Vertical shifts in the carriageway have a greater impact on vehicle speeds than any other measure. Provided that the humps or ramps are spaced sufficiently close together, studies have shown that the speeds of the majority are less than 20mph. Spacing should not be greater than 60m, and in general the height of the shift should be 100mm. Ramps with a shallow gradient need to be placed closer together than steeper gradients to achieve the same effect. For example 1 in 10 gradient ramps at 40m intervals have the same speed reducing effect as 1 in 7 gradient ramps at 60m intervals

Other measures such as lateral shifts, carriageway constrictions, roundabouts, small corner radii and changes in priority have an impact on vehicle speeds, but the majority of speeds generally remain above 20mph, although average speeds may be below the 30mph threshold

Accident reduction

The impact of traffic calming schemes on accident levels is generally related to both the speed reducing effect of the scheme, and on any reduction in traffic levels as a consequence of it. Slower vehicle speeds not only reduce the occurrence of accidents, but also have a significant effect on their severity.

In a global review of the effectiveness of village traffic calming by the Department for Transport (<http://assets.dft.gov.uk/publications/tal-11-00/tal-11-00.pdf>) there have been a number of important findings – to summarise;

Accidents involving vulnerable road users aged under 16 were reduced following scheme installation. Child pedestrians killed and seriously injured (KSI) accidents were reduced by three-quarters, and the number of all child cyclist injury accidents was halved.

Overall, the frequencies of all injury accidents and KSI accidents have reduced by about 25% and 50%, respectively

Conclusions were as follows;

- A 1 mph reduction in mean speed would result in a 4.3% reduction in all-injury accidents, and a 10% reduction in KSI accidents
- Schemes with physical measures in the village would reduce mean speeds by almost 8 mph and reduced the proportion of drivers exceeding the speed limit by more than 30 percentage points
- The most substantial measures (physical features and signing/markings measures with high visual impact) would be the most effective in terms of speed and accident reduction
- For all types of measures a downward shift in the distribution of speeds would result in a reduction in mean speeds.

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CONCLUSIONS

The most effective traffic calming measures for reducing vehicle speeds involve vertical shifts in the carriageway such as road humps, plateau and cushions. These measures are very dependent upon spacing for their effectiveness. At a spacing of 40-60m, vehicle speeds of less than 20mph may be achieved.

Other measures may be used in supporting roles such as road narrowing, chicanes, islands, tree planting, gateways etc; however, these measures are less effective in reducing speeds when used in isolation.

Studies have shown (see notes in section 7) that traffic calming can reduce accident levels by up to 50%, and have a significant impact on reducing the severity of accidents. Air pollution can also be reduced, although detailed information on this is limited.

Noise reduction through traffic calming is mainly related to reductions in traffic volumes, however the type of measures employed may create problems with noise levels. These are exacerbated if there is a high proportion of HGV's.

Area wide traffic calming schemes seek to calm both main roads and residential roads, however main road traffic calming is still a relatively new concept, and information on this is limited. Generally schemes on main roads do not make use of vertical shifts, and therefore significant reductions in vehicle speeds are harder to achieve.



Crumbly roads

The peace regularly shattered by shiny
beasts,
Roaring through the countryside,
A foul stench filled our nostrils,
Drawn back by noise,
Overwhelmed,
Bewildered by the speed and ferocity,
Battered countryside surrounds,
The road constantly has to take the pressure,
Potholes constantly appearing,
White, red and gold,
Will it ever stop?

By Theo Grindey age 9

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SUMMARY Proposed courses of actions

We have to consider what is effective, versus what is cost effective for the development of our traffic calming scheme and also what can be managed with internal (ie parish council) versus external (county/ district council) funding.

What can we do to enforce traffic calming through internal funding?

- Static 30mph vehicle activated speed reminders
- Hand held speed guns for use by selected parishioners
- 20mph speed signs
- Facsimiles of people at the side of the road

What will require a blend of internal and external funding in our two villages?

1. Entrance and exit gates, road narrowing and speed cushions & tree planting at both ends of each village. (Reason – to announce the village to through traffic and to limit entry and exit speeds). Principal issue here will be not to restrict the practicality of large agricultural or emergency vehicle passage.
2. Modification of road surfaces at Overbury school. (Reason - to indicate to drivers that a crossing for schoolchildren exists)
3. Modification of road surface near war memorial monument in Kemerton. (Reason - to enhance drivers' interest in the centre of Kemerton)
4. Development of off road parking near the village hall in Kemerton. (Reason - to enhance road safety for village hall users)

Next steps?

- (i) Circulate documentation to both councils in villages asking for any modifications to our proposals
- (ii) We propose that a village questionnaire be circulated to all residents of both villages, along with an electronic copy of our final proposed documentation.
- (iii) Traffic movement research – a one week project in both villages

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Appendix

Summary of VAS speed sign hits in Kemerton 30/9/2012 – 24/7/2013

Site	Days monitored	Number of hits > 30mph	Average per day
Bredon end	159	125270	788
Overbury end	134	46744	349
Mid Village	49	8681	177

