

Environment Overview and Scrutiny Committee

Local Agenda 21

A report to the Cabinet following the Committee's investigation into the issue of Road Design in Environmentally Sensitive Rural Areas.

This report results from the second in a series of investigations that the Environment Overview and Scrutiny Committee is undertaking into the way that the County Council interfaces with the environment of Buckinghamshire. The OSC examined how best to achieve the right balance between the infrastructure required for transporting people and goods quickly and safely and the need for environmental protection or management in sensitive areas and the recognition of the wishes of local people.

Date	12 July 2004
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Buckinghamshire County Council

Report

Cabinet

AGENDA ITEM: 6

Date	12 July 2004
Title	Road Design in Environmentally Sensitive Areas
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Electoral Divisions Affected	All

Introduction

1. This report results from the second in a series of investigations that the Environment Overview and Scrutiny Committee is undertaking into the way that the County Council interfaces with the environment of Buckinghamshire. The first report related to the Local Agenda 21 and the sustainability agenda; the next will consider the Council's "environmental footprint".

Subject of the investigation

2. How best to achieve the right balance between the infrastructure required for transporting people and goods quickly and safely and the need for environmental protection or management in sensitive areas and the recognition of the wishes of local people.

Purpose of the investigation

3. To produce recommendations for criteria for rural road design outside the major population areas that can be set alongside the main local and national design guidance as an aide memoir for designers to ensure that the importance of environmental sensitivity and local preference are recognised and taken into account in all designs. The criteria should be uncomplicated, clear and practicable; should not compromise safety but should be capable of setting a pattern for Buckinghamshire for the foreseeable future.

Recommendations

- i. Innovation in design should be encouraged and urban solutions should be avoided in a rural setting unless they can be seen to fit into the environment. Schemes should seek to balance the effects on the environment with the benefits to safety, economy and effects of the scheme on the public.**
- ii. The Guidelines for the Environmental Management of Roads in the Chilterns, together with the principles underlying the Management Plan for the Chilterns AONB should be adopted for the whole of Buckinghamshire not only in the Chilterns. This must not lose sight of the significance of roundabouts as strategic horizontal calming measures and the importance of lighting and other safe management techniques even in areas of environmental sensitivity.**
- iii. Consistency plus choice should be an essential principle of road design across the County while recognising that the design of roadside features such as gateways should be recognisable as such in order for them to be effective at influencing the behaviour of the travelling public entering the area. Consideration should be given to local character and the use of local materials when carrying out designs of particular roadside features. Local councils should be given a range of options with regard to outline road designs on the condition that they would be expected to contribute towards a more expensive solution if that was desired.**
- iv. The Council should lobby the Department for Transport, perhaps through national local government associations, for greater local freedom to be able to use road design solutions that suit the local environment.**
- v. The specific features identified in the section below headed "Design and innovation" should be incorporated into local guidelines as examples of the considerations that should be taken into account when designing rural road schemes.**
- vi. Local members should be the prime focus for early consultation on road schemes in their area and to be kept informed regularly as the decision developed. They should be the judge of how much consultation material they receive.**
- vii. Members should be kept abreast of the outcomes of pilot studies currently being undertaken whereby roads are being stripped of signs and other features to encourage drivers and pedestrians to think their way around the road environment.**
- viii. A member seminar should be held on the subject of Corporate Manslaughter once forthcoming legislation is published.**

A Brief Summary of the Report

4. This investigation shows that the Council has moved forward in the last 18 months or so in developing designs in more environmentally oriented ways. There has also been an improvement in the level and quality of public consultation.
5. Members of the OSC were particularly interested in exploring the issue of how innovation in road design can be balanced against risk and liability. They also considered how far local character and local features should influence road design and the importance of sensitivity to the local environment.
6. The investigation established that, despite tight DfT standards, it is possible to create innovative designs that fulfil the above criteria. In such cases it is important for there to be a proper rationale behind the design and for a clear audit trail to be left. Plainly any design should not create risks for road users but even where every effort is made to reduce risk collisions can still happen. The rationale and audit trail could then be produced in any investigation to show that the authority had undertaken a proper level of risk assessment and safety audit.
7. Guidelines for the Environmental Management of Roads in the Chilterns already exist, as does a Management Plan for the Chilterns AONB. These documents set out a way of managing road development in an environmentally sensitive area that members consider worthy of using as guidance for other rural parts of the County.
8. Public consultation over designs is considered by members to be of primary importance. The OSC was pleased to acknowledge that major strides had been made in this regard and recognized that consultation on a wide scale is expensive and resource hungry. However it was the OSC's opinion that more should be done to consult local members as early as possible in the design process and to keep them informed regularly as the decision developed.
9. The OSC considered the Council's relationship with BAPTIE, the Council's engineering consultants. It is essential that Babtie staff should be integrated into the culture of the County Council. The development of this integration could be seen in that, among other developments since the Committee began its work, Babtie has appointed environmental design champions to work with the Council and other, related, clients. Members welcomed these developments.

Focus of the work

10. The initial investigation concentrated on the Chilterns Area of Outstanding Natural Beauty (AONB) and sought to identify principles that could be applied to the whole of Buckinghamshire.
11. The OSC sought answers to the following questions:
 - How are decisions around road scheme design made?
 - Who makes the decisions?

- What makes a well-designed scheme?
- How can the public, parish councils and other interested parties be involved in design decisions?
- What is the role of planners in design decisions?
- What are the necessary trade-offs between risk, liability, cost etc and environmental enhancement?
- Are there differences between the principles governing large and small schemes?
- What are the risks and liabilities to the Council if the correct policies and priorities are not adopted?
- What is the legal position of officers and members?
- How can a wish for innovation be balanced against risk and liability?
- What financial considerations have to be made as part of the design process?

Background

12. Members of the OSC are aware that there can be cost implications attached to improving the perceived quality of road design. They are also aware of how difficult it is to please all of the people all of the time. There is increasing pressure across the country to remove traffic calming and other safety measures and examples were heard about from within Buckinghamshire where residents are arguing for such action. For example in one part of the County concern has been expressed that the traffic calming that had been implemented in a village was noisy and spoiled housing frontages and should be removed despite the fact that traffic flows had reduced by 30% and speed by an average of 10mph.
13. There had been a public exhibition of the scheme before it was implemented with an artist's impression of what the scheme would look like. Members suggested that it could have been helpful if residents had been offered the opportunity to visit other schemes that were already operating, to see how they worked in practice. Having said that, it has to be recognised that any public consultation would only obtain views from a minority of residents and it is often not until a scheme has been implemented that people become aware of the effects of it and made their protest to the Council.
14. The County Council does not have carte blanche to develop its own signs and road designs. For example, members were made aware that the Department for Transport had not approved a Quiet Lane sign developed by Oxfordshire and Buckinghamshire County Councils as an alternative to that used on the national Quiet Lane pilot projects in Kent and Norfolk. This was despite the fact that the proposed alternative sign had been shown at public consultations and approximately 80% of those who expressed a preference preferred the alternative to the national sign.
15. There is a difficult balance to be achieved between using innovative design and ensuring that no liability would fall on the Council as a result of this new design. The law is constantly developing and being interpreted by the courts in different, and sometimes surprising, ways.

16. It is clear therefore that the process of developing a strategy for rural road design is complicated by the need to reconcile the wishes and requirements of road users with those of local people as well as the dictates of central government and the law. The OSC recognizes the difficult job that officers have in this regard. Furthermore, there will always be a tension between the need for safety and environmental protection particularly with the continuing drive for casualty reduction. So the recommendations that are contained in this report have been tempered by reality.

Evidence gathering

17. The OSC gathered evidence from the following contributors:

- Paul Forman – Head of the Risk Management Team at the UK Transport Research Laboratory
- Steve Rodrick – Chilterns AONB Officer Shadow Chilterns Conservation Board
- Keith Shaw – Highway Network Manager, Highway Network Management BCC
- Shaun Pope – Chilterns AONB Officer BCC/Shadow Chilterns Conservation Board
- John Killip – Team Leader, Major Project Implementation BCC
- Rachel Jones – Planning and Environment Team BCC
- Sian Thomas – Team Leader, Traffic Management North
- Barry Waterhouse – Business Centre Director-Babtie
- Mike Barber – Senior Engineer Traffic and Transport Team-Babtie

Please note; Babtie is the County Council's engineering consultant

18. In addition to gathering evidence in the Committee Room members of the OSC visited a number of sites within the Chilterns AONB area.

Findings

Risk and liability

19. The Committee discussed the issue of road design and legal liability using the example of a road in the Chilterns that had no pavement but was used as a footway. There was pressure not to alter the rural feel of the environment yet if the road was used as a footway would the Council be liable if they took no action in putting in physical measures to make the road safer for pedestrians? However the Council could also be liable if they implemented specific measures that could be linked to incidents on the road.
20. The OSC was told that, if councils implemented innovative designs, then the safety audit process becomes particularly important so clear audit trails need to be maintained. Whilst the design may be safe in the first instance, regular maintenance was often required to ensure that it did not become unsafe. If incidents were to happen either initially or after a period of time, when maintenance should have taken place, then the Council could be vulnerable to an investigation/claim. Investigators consider the whole context of a collision

resulting in either serious injury or death (road surface, signage, lighting and design etc) not just the speed of the vehicles at the time of impact. The Association of Chief Police Officers' (ACPO) Road Death Investigation Manual states that, "The performance of the highway authority responsible for the road where a collision has taken place is a vital consideration during such investigations". It is significant that collision investigations and court decisions are not based on a judgement of how a good or even an average driver might react but how any road user, however poor or careless a driver might perform.

21. Members were reminded that roadside objects such as wooden posts could cause fatal injuries and could easily penetrate a vehicle structure. Trees, if run into, could also cause devastating damage. Thus it was not just a case of assessing the design but also of ensuring that the safety critical pieces of the infrastructure in advance of the feature (such as the skidding resistance of a bend) were well resourced and maintained.
22. It is important to maintain an adequate audit trail so that if an innovative design were to be implemented and a collision occurred at the site, the audit trail would show that the authority had undertaken a proper level of risk assessment and safety audit. Innovation in design has to be balanced against risk and liability.
23. A number of basic rules were identified that, if adhered to, should enable innovative designs to be justified:
 - Do not set over-ambitious policies
 - Be consistent in the application of policies, design and rationales for policies
 - Do not spend on discretionary powers before fulfilling obligatory maintenance
 - Ensure that audit trails are in place so that the reason for decisions can be seen and (crucially) the rationale can be clearly demonstrated
 - Use prior knowledge when developing designs and keep records that ensure that the use of prior knowledge can be demonstrated
 - Think about the direct and indirect safety effects of road schemes
 - Ensure that the appropriate level of safety audit and risk assessment is undertaken
 - Ensure that all points of the system (engineers, planners, safety audit team etc) operate in a joined-up manner
 - Question how planning, design, audit, maintenance etc would stand up to public scrutiny or investigation
 - Develop clear, data-led policies that enable all schemes to be assessed within a set of easily understood criteria
 - Remember that a lack of resources is no defence in a court of law and that rational prioritisation is the only key to explaining an authority's spending profile
 - Monitor schemes regularly and ensure that sites are not only engineered adequately but are also maintained sufficiently for the changing traffic flows and composition the Council are experiencing or expecting on the highways. The Council has powers to improve, but a duty to maintain.

This is not to say that the above criteria are not considered at present. Just that it is important that they are understood fully and are remembered.

24. Legally, most of what members and officers do in the course of their work for the Council is covered by the Council's insurance policy; provided that activities are not maliciously motivated. However there is likely to be a new bill introducing the concept of Corporate Manslaughter published very soon establishing criminal liability for deaths arising out of corporate failure. The OSC recommends that a member seminar be held on the subject once the legislation is agreed, and appropriate action taken to ensure that our systems do not over expose the County Council to these risks.

Design and innovation

25. Members understand that there needs to be a recognition that there is a difference between the strategic and other roads in that the former should be attractive to the majority of traffic. The following discussion takes that into account as well as the need for design applications on strategic roads to take into account the volumes and type of traffic using the road.
26. Members were pleased to discover that there is now a much better understanding of the importance of thoughtful design in environmentally sensitive areas. They consider that officers should be encouraged to adopt innovative solutions to create road designs that harmonize with the local environment.
27. The Committee identified a number of features that they considered should go towards a well-designed rural road scheme. This could be defined as achieving the desired aim of the scheme with minimum impact and a balance between safety, speed etc and the sensitivity of the environment. Doing just what is needed and not more than is needed.
28. Wide and fast roads in even relatively rural areas can spoil the look of the local environment. However, one resident who contacted scrutiny felt that rural roads were too narrow and that there should be a road widening programme.
29. It is important that the whole context of an area should be considered when designing roads. For example, how would a road look, not just from the immediate neighbourhood but also from surrounding hills? Wherever possible, the guiding principle should be that "small is beautiful". For example, where it is clear that the only solution to a design issue would be a roundabout, it should be as small as possible with the minimum of furniture around it.
30. It is recognised that the size of signs is dictated by DfT standards and relate to the speed limit of the road and type of road. However, large signs should not be used in a rural area unless absolutely necessary and/or required by national standards that cannot be circumvented. The aim should always be to use as few signs as possible and to make them as small as is consistent with road safety.
31. Roundabouts should be sensitively landscaped without the excessive vegetation that is sometimes planted and handicaps the view of approaching traffic.

Motorists need to be able to see across roundabouts (this is clearly an urban as well as a rural issue).

32. Members recognized the benefit of the low level block work chevrons on roundabouts and considered that further thought should be given to whether the higher-level signs were always necessary. It was also seen to be important to maintain the condition of the roundabouts including the chevrons. Roundabouts are often one of the only features that motorists passing through an area see and as such can make or mar the impression that people have of Buckinghamshire.
33. The design of safety fences and barriers together with kerbing should be looked at for a softer landscaping effect. Changing the road surface could be used instead of kerbs where appropriate and where it is not necessary for kerbs to be used to support the structure of the road.
34. Members expressed concern at the increasing use of white gates to mark village and estate boundaries. While appreciating the safety aspect of such gates being easily demolished when hit and the cost benefits of ordering in bulk, it is considered that boundaries could be marked just as effectively while considering local character and local features; perhaps by using local stone or reflecting the style of older houses built in that area. Whilst soft landscaping and the use of certain materials, such as stone and wood look attractive, they are often not used because they can be expensive and require regular maintenance. It is proposed that local councils should be given a range of options with regard to road design on the condition that they would be expected to contribute towards a more expensive solution if that was desired. The freedom to innovate should be tempered by the proviso that the “gateway” features can be recognised as such by motorists, thus ensuring that driver behaviour is modified on entering a built-up area.
35. Referring back to the earlier discussion on the Quiet Lanes sign, members agreed to recommend that there should be further lobbying of the DfT for Councils to have more freedom to be able to use road design solutions that suit the local environment, and have local support.
36. The above is certainly not an exhaustive list but does indicate the views of the Committee and what members consider to be important in road design. However, rather than produce a long list of recommendations in this report, the OSC would rather refer to the Guidelines for the Environmental Management of Roads in the Chilterns.
37. The Guidelines were written in 1997 and are being updated at present. In common with the original guidelines the updated version is being produced in conjunction with officers from all of the Chilterns area local highway authorities including Buckinghamshire County Council. Members of the OSC consider that it is important for officers and consultants to refer to these guidelines when designing traffic features in any environmentally sensitive rural location in Buckinghamshire – not only in the Chilterns. Consistency across the County should be an essential principle of road design. Urban solutions should not be used in a rural setting unless they can be seen to fit into the environment.

38. The current Management Plan for the Chilterns AONB, adopted in 2002 by the Shadow Chilterns Conservation Board and its members (which include Buckinghamshire County Council) referred to the need to:

- Conserve and enhance the rural character of the AONB, whilst ensuring safer access for travellers to and within the area.
- Promote environmentally sustainable and integrated forms of travel, especially alternatives to the car.
- Enhance the quality of the environment for local communities and visitors by reducing the impact of vehicle traffic on rural roads, and within towns and villages.
- Promote the importance of conserving the Chilterns AONB in the development and operation of regional and national transport systems.
- Protect the special landscape and other environmental qualities of the AONB from the damaging impacts of transportation developments and highway improvement schemes.

39. Again the OSC considers that these principles should be applied to all rural areas across the County as appropriate.

40. Finally, members have become aware of a number of pilot schemes being undertaken across the country whereby roads are being stripped of signs and other features to encourage drivers and pedestrians to think their way around the road environment rather than simply to go where they are sent and/or to follow signs. Members found this a very interesting idea and asked to be kept abreast of the outcomes of the pilots in other counties.

Consultation

41. Members were heartened to learn that great efforts were now being made to improve the level of public consultation and that the importance of local consultation is recognized. This is particularly so in the AONB but it is clear that these principles are beginning to be adopted throughout the County. It is understood by officers that residents are entitled to have their "legitimate expectations" taken into account. A number of "Have Your Say" days have taken place and have been well attended with resident's views being taken into account. Larger-scale consultations have been carried out on major schemes such as the Stoke Hammond and Linslade western bypasses.

42. The reorganisation, last year, of the Transportation Service with teams working from the area offices in the north and south of the County appears to be improving the level of consultation and the understanding of officers of the needs of their patch. Putting these officers into the areas has brought them nearer to the communities they serve. The increased level of consultation has resulted in longer lead times for scheme delivery but this is considered to be a price well worth paying.

43. The limitations of public consultation have already been referred to but it is important to ensure that local members are appraised fully of any schemes that are planned before decisions are made and any action taken. The Committee was given a description of the way that officers liaise with the police, parish

councillors and local members at an early stage and keep them informed of the scheme as it progresses.

44. Members expressed some scepticism about just how effective and far-reaching such consultation is. A number of examples were given of occasions when members had been embarrassed by being asked to comment on schemes of which they had no knowledge. Officers explained that they found it difficult to balance the need to provide members with the information that they required with their wish not to inundate members. Members made clear that they would rather receive too much information rather than too little. They can always say "no more". They also considered that it was important that they were consulted in a timely manner before a great deal of development work was done on a scheme that would possibly not receive public support.

The Consultancy

45. The County Council's term contract engineering consultants, Babtie, have been working with the Council for two years. Part of their remit is to work with the Council to consider the environmental impact of roads and the type of materials used for road design.
46. It is essential that Babtie staff are integrated into the culture of the County Council. This is an area in which the Council has taken and should continue to take the lead. As evidence of this growing integration, since the Committee began its work, Babtie appointed environmental design champions to work with the Council, Babtie's other County Council clients in the Chilterns area and with the working group that is looking at the Environmental Guidelines for the Management of Roads in the Chilterns. Babtie has committed to undertake research to identify examples of good practice in relation to highway design in environmentally sensitive areas and to raise awareness of environmentally sensitive design within Babtie and through relationships with their client Councils. They have also undertaken to provide input into the OSCs when required. Members of the OSC were delighted to hear of these very positive initiatives.
47. With the expected growth in housing, there is inevitably going to be pressure for better infrastructure to manage the traffic. This will increase the importance of exploring road design as housing and economic growth, even if it is all in the north of the County, will lead to greater pressure on the infrastructure throughout the County.

Planning and the environment

48. New road schemes require planning permission. If it is an addition or change to an existing scheme it may not require additional approval if the environmental effects are minimal. Where approval is required, Development Control Planning approval is sought. The Planning team has wide-ranging powers that enable them to request major changes to schemes on environmental grounds. However it could be possible that the cost of amendments to reduce environmental impact could jeopardise the scheme viability. In such cases the Development Control Committee has the power to decide whether the importance of the scheme going ahead outweighs the detrimental environmental considerations.

49. The Government has produced environmental impact guidelines but are willing to see them be relaxed in order to speed up development in those areas where they think it beneficial. For instance, they are keen to develop brownfield sites and allow more flexibility in the planning process. Reference was made during the investigation to a recent case where a Highways Officer had ruled that a scheme should not go ahead due to safety concerns. However, on appeal the Government appointed Inspector-in-charge had allowed the Scheme by relaxing design requirements. The Highways Officer could not challenge the Inspector as the courts made the final decision. Such cases are of concern because enabling developers to adopt relaxed standards can result in cheaper, less effective designs and play into the hands of developers who are keen to cut costs wherever possible eg no lighting, smaller or no signs etc. Developers are also very keen to identify schemes where standards have been lowered so that they can use that as an argument to cut costs on future schemes with a similar set of circumstances. That process happens on a county, regional and national scale.
50. The OSC is not making any proposals here other than to urge that the necessary weight should continue to be accorded to environmental issues when taking planning decisions.

Conclusion

51. Members of the OSC were heartened to hear of the good work that is being done to improve both the quality of road design in environmentally sensitive areas and the level of public consultation that is now being undertaken. Officers, both from within the Council and also from Babbie, are to be congratulated on the work that they have done and are continuing to do in order to improve the Council's performance in these important areas.
52. There is, as there will always be, some room for things to be done better and it is the Committee's hope that the recommendations made in this report will aid officers in their work and will enhance further the County Council's reputation for environmental awareness.

Acknowledgement

53. The Committee is grateful for the advice and support they have received from a large number of people but in particular to Keith Shaw – Highway Network Manager and Shaun Pope – Chilterns AONB Officer both of whom have given a great deal of advice and assistance and, above all, time to help the OSC complete this project.