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COMMUTED SUMS FOR MAINTAINING INFRASTRUCTURE ASSETS

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FOREWORD

The use of commuted sums for future maintenance is not new, but there is considerable variation in their use and practice by highway authorities in relation to new developments. Historically commuted sum payments have been limited mainly to sums in respect of the future maintenance of bridges, tunnels or unusual items. More recently, for a variety of reasons, there has been a trend for the scope of commuted sums to be widened.

The style, location and expectation of developments has changed over the last 10 to 15 years with more emphasis being placed on providing Better Places to Live, delivering a 'quality' environment with enhanced materials and street design. Coming at the same time as moves to develop the more constrained and challenging sites, this has raised questions over the adoption and, in particular, the safety, maintainability and future funding of road layouts which vary from the 'normal' standard of highways authorities, and on which their funding levels are based.

These challenges often lead to the introduction of higher levels of maintenance and may also involve additional features such as retaining walls, and soakaways, which place additional burdens on future maintenance, but are often the only way to allow the practical development of the site.

Local authorities and other public/community bodies have increasing pressures on their budgets, which would normally preclude these enhanced developments from being maintained to the appropriate standard unless payment is sought from the developer for the 'extra over' costs involved. Often these enhancements improve both the developer's development prospects, and their sales opportunities, and it is unreasonable that the extra costs involved are borne by public and community organisations, and ultimately the council tax payer. On the other hand, it is not in the original spirit of commuted sums for an authority to ask for sums in excess of reasonable additional future costs.

This guidance aligns with the fundamental asset management principle of understanding 'whole life costs'. Its use should help to develop design concepts and material specifications, which are

of benefit to all parties, and which should move towards providing durable infrastructure without any need for commuted sum payments for their future maintenance.

It is intended that both highway authorities, and developers, use this guidance in the spirit in which it is meant, and that innovation is not stifled. The aim is to enhance flexibility for highway authorities to adopt 'non-standard' layouts and materials, without placing undue burdens either on its maintenance budget, or the public purse, through constructive negotiation with developers, aimed at reaching a fair and amicable funding agreement and avoiding unnecessary conflict and litigation.

The guidance provides a transparent and consistent approach both to the seeking of and to the calculation of commuted sums. The clarity of approach should help remove the uncertainty and risk for developers at an early stage in the process. It will also provide security to the overstretched highway budgets, enabling developments to progress with much more certainty about their overall requirements and commitment, by both parties.

The guidance in not fully developed in all areas and the CSS proposes to keep the issue under review, with a national working group to undertake further work.

SUMMARY OF 'BEST PRACTICE' GUIDANCE

The guidance contained in this document is provided within the context of current practices regarding commuted sums and, as such, it also raises issues for further discussion, as well as seeking feedback on its application.

It is recommended that highway authorities review their current strategies for the calculation of commuted sums for future maintenance, and ensure that they have 'clear' local standards, for design and maintenance, within their Design Guide (Section 4.3).

The specific guidance recommendations are summarised as follows:

- Developers should establish a dialogue with both the highway and planning authorities at the earliest possible stage, preferably prior to any land being purchased and certainly before planning permission is submitted (Section 2.4)
- The use of S37 should be avoided wherever possible, and that S38 should remain as the preferred method for highways adoption (Section 2.5)
- It is not appropriate to seek commuted sums where other specific sources of funding are provided to cover ongoing maintenance (Sections 3.1 & 5.2)
- It is not appropriate to request commuted sums for 'standard' highway network, or street lighting, adoptions (Sections 3.1 & 5.2)
- The process for, and calculation of, commuted sums should be transparent, and collected monies should at least be ring-fenced to the maintenance of the highway network. Such monies should not be deducted from any normal highway maintenance budget provision (Section 3.2)
- Highway authorities should look more flexibly at what assets they are prepared to adopt, and review the circumstances for which commuted sums will be sought (Sections 4.2 & 5.3)
- The work of existing highway valuation groups be extended to develop standardised unit rates for the maintenance of the various highway asset elements (Section 4.2)
- Highway authorities should set up materials databases and look to share information (both regionally and nationally) on new materials and methods (Section 4.3)
- Highway authorities should develop their own standard construction definitions, and accepted materials list (Section 5.1) with due consideration of risk (Section 5.9)
- Commuted sums should generally be applied for the 'extra over' costs to be met by the highway authority (Sections 5.2, 5.3 and Appendix 4)
- Commuted sums may well be appropriate for any new works carried out to facilitate new development as part of a S278 Agreement, without any requirement for calculating 'degree of benefit' to the highway authority (Section 5.2)
- The final commuted sum figure paid should be calculated immediately before the development infrastructure is adopted, and the figure should be adjusted periodically throughout design and construction to accommodate any price fluctuations (Section 5.5)
- Any commuted sums should be included in the Bond required from the developer (Section 5.6) and be payable before issue of the Final Certificate (Section 5.7)
- Within its calculation formula, the high way authority should use a discount rate of 2.2% and a time period of 60 years for maintenance calculation purposes (Appendix 5). If a highway authority considers that a different rate or time period should be used (e.g. transfer of a bridge which will be required in perpetuity) the reasons for doing so and the calculations used must be made explicit.
- There should not be any retrospective application of this guidance, which should be applied to new agreements only (Sections 5.2 & 5.8)

INTRODUCTION

1.1 BACKGROUND & SCOPE

In July 2003 the ODPM (now Department for Communities and Local Government) published the report Better Streets, Better Places Delivering Sustainable Residential Environments[1]. This followed a research project to establish whether there were substantive problems over the adoption of new highways meeting the requirements of Planning Policy Statement Note 3: Housing (PPS3) and Planning Policy Wales. The object of the study was to identify the underlying causes of any such problems; and recommend how they should be addressed.

The report identified the reluctance of many highway authorities to adopt materials or designs that were considered to require higher levels of maintenance than their 'normal' standard. In order to cover any resulting increased maintenance costs highway authorities were increasingly seeking commuted sums for these 'extra over' costs.

The report recommended "that government takes steps to regularise the system for authorities seeking payments from developers for future maintenance, so that it is seen to be equitable and transparent". It was proposed that Manual for Streets (MfS)[2] should include clear guidance as to what should normally be regarded as adoptable, without any payment for exceptional future maintenance. Payments for future maintenance should then only be charged for items falling outside these categories, with clear rules to determine their calculation; and with obligations for the adopting authority to maintain the infrastructure to an agreed standard – a 'quality contract'. However, due to difficulties in reaching any agreement, this did not happen at the time of publication of MfS.

This Guidance Document is seen as the first step to achieving the government's objectives and aims to provide a transparent and consistent approach to the determination of relevant commuted sum payments for future maintenance aspects of adopted, or otherwise transferred, assets in England and Wales. It is intended to be used in relation to the general 'public realm' aspects of new developments and is, therefore, not solely for the use of highway authorities but also by district/borough, town or parish councils.

Local authorities, will need to approach this subject with full regard to their local circumstances, needs and budgets. This guidance is offered in the hope of assisting all authorities to formulate their approach to commuted sum payments, being based on current 'best practice', and allowing for flexibility of approach and ability to stimulate improvements. It advocates early advice to the developer as to the specific requirements of the authority such that the developer is aware of all likely costs at the outset, and the likelihood of adoption by the local authority is maximised. The document attempts to treat all assets in an equal manner, and outlines when a commuted sum will normally apply, how the sum is calculated, and how these should be managed in future years for the on-going maintenance of the relevant assets. The overall intent is not to stifle innovation, but rather to give the highway authority greater flexibility to adopt 'non-standard' layouts and materials without placing undue burdens either on its maintenance budget or its Council Tax payers.

For highway infrastructure, typically, but not invariably, commuted sums are secured by way of agreements made under the Highways Act 1980, using Section 38 for new roads provided on private land, and Section 278 for alterations made to existing publicly maintained highways. As part of these agreements, many local highway authorities have long required applicants to make commuted payments towards the future maintenance of the new or improved highways provided. The statutory authority for these payments appears in Sections 38(6) and 278(3) of the 1980 Act. Such commuted payments are considered lawful, but are not to be considered as a panacea for income generation, and must be seen to be fair to all parties. In the interests of both highway authorities and developers alike, and to achieve 'shared' local and national objectives, the pursuit of commuted sums for future maintenance should be tempered with 'reasonableness' of use, be in the spirit of the 1980 Highways Act, and be applied along similar lines across the country. The guidance advocates a way forward that, irrespective of the legal issues involved, should be fair to all parties and aims to achieve the required outcome of desirable and sustainable developments.

The government is committed to encouraging a major house building programme over the next 10 years and beyond. The Barker Review of housing supply[3] has also stressed the benefits to the country of economic activity and development. It is vital that both new housing and new commercial and other development be supported by suitable infrastructure. Developers, local authorities, and other stakeholders all need to be engaged at an early stage,

[1] ODPM (2003), Better Streets, Better Places, available from www.communities.gov.uk/archived/publications/planningandbuilding/betterstreetsbetter

[2] DfT, CLG & WAG (2007), Manual for Streets, London: Thomas Telford Publishing, available from www.dft.gov.uk/pgr/sustainable/manforstreets/. Manual for Streets provides guidance for practitioners involved in the planning, design, provision and approval of new residential streets, and modifications to existing ones.

[3] Barker, Kate (2004), Delivering Stability: Securing our Future Housing Needs, available from www.hm-treasury.gov.uk/barker_review_of_housing_supply_recommendations.htm.

as required in MfS and be able to plan ahead with confidence that development and related infrastructure will come forward together, and that resources will be available for the maintenance of that infrastructure. As the number of roads built by developers has increased, different highway authorities have developed a wide range of approaches as to where these commuted payments should be used and how they should be calculated, which has highlighted the need for this guidance.

With the development of more difficult sites, for example those with topographical, drainage or 'brown site' aspects, or involving innovative or unusual structures, the maintenance liability and costs increase. These situations are becoming more common, and may include features such as access bridges, retaining walls, sustainable drainage systems (SUDS) and stabilised earthwork embankments, that may require increased levels of maintenance attention. The associated maintenance costs represent an increase in future maintenance liability which will be more than the anticipated increase in funding normally generated by the development.

Ownership and responsibility for bridges which support the highway is sometimes transferred between authorities. This will typically involve transfer of liability from Network Rail, British Waterways or an internal drainage board to a highway authority. The highway authority will normally require a commuted sum to be paid to take account of the financial liability it is taking on.

This document proposes a way forward for LHAs seeking commuted sums without prejudice to any interpretation of legislation. In building upon established good practice, the guidance seeks to keep the process as simple as possible. The aim is to raise the profile of commuted sums, encourage innovation, and create a platform from which to move forward with this issue in a consistent and transparent way.

The development of this document has involved consultation with as many potential stakeholders as possible. All sectors of the industry have been consulted in its preparation, and the guidance seeks to take a balanced view and to be of benefit to all interested parties. It, therefore, gives advice built upon best practice and, as far as possible, where a degree of consensus has been achieved. It does not necessarily represent the views of all parties involved in the consultation process, nor can it be expected to cover every possible situation that may exist.

The document is not able to be definitive in all areas and, as such, also raises issues for further debate. In this respect some

of the sections are peripheral to the main issue but are included in order to put commuted sums in context with other current initiatives, and to assist with the further debate, and help to formulate additional definitive policy, advice and guidance.

This guidance is directed at any situation in England and Wales where an asset is being transferred from one body, or organisation, to another. It is anticipated that the main users will be highway authorities, local planning authorities and developers, when negotiating the adoption of highway assets as part of development works. However, it is also intended that it be used by:

- Local authorities (including district/borough, town or parish councils) in relation to the general 'public realm', with the adoption of 'non-highway' assets such as open spaces, landscaping, public art, play equipment and other assets outside of the highway.
- Bodies such as British Waterways or Network Rail, when for example, they are transferring ownership of such items as bridges and structures. (Currently existing advice on commuted sums for transfer of ownership of bridges between Network Rail and highway authorities is outlined in 'Strengthening of Railtrack owned Highway Bridges – Guidance for implementation', March 1999).
- Where practical, all local authorities in relation to SUDS and balancing ponds independent of or within open spaces

The main objectives of this document are:

- To encourage more clarity and consistency of practices in relation to the use of commuted sums for future maintenance.
- To encourage creativity and innovation in line with the 'Manual for Streets' philosophy, by the potential adoption of higher quality features and materials without the application of commuted sums.
- To find a negotiated solution in adopting 'non-standard' layouts and materials without placing undue burdens either on its maintenance budget or its Council Tax payers.
- To ensure that developers are aware of any local authority requirements at an early stage, and provide more transparency in the commuted sum calculations.
- To provide some basic guidance to be followed for the calculation and application of commuted sums.
- To keep the guidance simple, thus enabling the adoption process to become as straightforward as possible.
- As far as possible, to increase the likelihood of developments being adopted and avoid the creation of new private streets, and
- To raise the national profile of commuted sums, the issues still to be resolved, and engender further debate.

The guidance follows established good practice and is largely based around the Leicestershire County Council documentation, developed on behalf of the Midlands Service Improvement Group (MSIG). In order to avoid duplication, all material sources are acknowledged and appropriate references are provided.

A number of documents have been issued in recent years that recognise payments for future maintenance by developers. These are listed in the bibliography at Appendix 8.

1.2 STATUS OF DOCUMENT

This is not national Government guidance or advice. Although it is hoped that this guidance will be referred to and followed by all interested parties, it is not mandatory. It attempts to reflect reasonable practice and the intentions of current legislation. It does not represent a definitive statement or advice and, as such, any party using this document should seek their own legal advice about its use in any specific, and especially unusual, situations.

It is expected that this guidance will promote further debate and additional related work and, as such, will need to be regularly reviewed – potentially by a new national forum. It has been developed in consultation with as many interested stakeholders as possible.

1.3 ACKNOWLEDGEMENTS

The development of the Guidance was guided by a Steering group, which comprised:

Edward Bunting	Department for Transport (DfT) Project Officer
Chris Britton	Chris Britton Consultancy (CBC) Project Director
John Linsley	Chris Britton Consultancy (CBC) Project Manager
Robert Biggs	Derbyshire County Council (CSS Representative)
Anthony Radford-Foley	Bracknell Forest DC (TAG Representative)
Paul Sheard	Leicestershire County Council (representing CSS Finance Committee)
Neil Besley	Derby City Council (representing the CSS Bridges Group)
Stuart Bulmer	URS (representing the CSS Lighting Group)
Carl Dyer	Osborne Clark
Henry Brougham	Roger TYM & Partners

Acknowledgements are due to the Project Steering Group members and the stakeholders who participated in the questionnaire exercise, and provided additional contributions during the development of the guidance.

A special acknowledgement should also be made to Leicestershire County Council, and particularly Frank Bedford, for their considerable contribution to the project, and for providing detailed information on the Midlands Service Improvement Group (MSIG) initiative, which forms the "backbone" of this document.

LEGAL & PLANNING ISSUES

2.1 CURRENT SITUATION

There remains a diversity of opinion as to the legality of Section 38 commuted sum payments in relation to the future maintenance of highway assets when adopted from private developers. Although no case law exists, this document has been prepared on the basis that commuted sum payments are lawful under both Sections 38 and 278 of the 1980 Highways Act. It identifies a way forward that is in the spirit of the 1980 Act. However, local authorities should also take appropriate legal advice.

The Midlands Service Improvement Group (MSIG) approach has developer support, and is seen as a reasonable and acceptable way forward to achieve layouts and features that create the environment that all parties seek for future desirable and sustainable developments. It is not just seen as a source of income generation for LHAs.

2.2 COMMUTED SUM DEFINITION

The following legal definition is suggested for the term 'commuted sum' in relation to the adoption of new infrastructure:

"Commuted Sum: A payment of a capital sum by an individual, authority or company to the highway authority, local authority, or other body, as a contribution towards the future maintenance of the asset to be adopted, or transferred."

Such payment need not be a single payment and can, by agreement, be a series of payments and may include issues beyond maintenance, such as inspection, repair and relocation of the asset.

Commuted sums are expected, in the main, to relate to payment made by developers as a contribution towards the future capital maintenance of 'non-standard' and 'extra over' features in developments. Section 4 outlines the specific asset types that are applicable to commuted sums, and Section 5, the suggested categories and criteria for payment.

The payment of a commuted sum by a developer will discharge them of any future maintenance responsibility for the adopted assets after issue of the final certificate. The payment of an appropriate commuted sum by an owner of an asset will discharge the owner of the obligation to maintain the asset. The obligation, and associated risk, then lies with the adopting party to maintain the asset.

2.3 STATUTORY AGREEMENTS AND THE PLANNING CONSENT

The former ODPM Circular 05/2005: *Planning Obligations* refers to the securing of financial contributions towards the provision of infrastructure by way of Section 106 Agreements.

The situation is Wales is covered by *Planning Policy for Wales* together with associated Welsh Technical Advice Note (TAN) documents.

A Section 106 (S106) Agreement (under the Town and Country Planning Act 1990) is entered into by an individual to obtain planning permission for a development proposal. Once executed a S106 Agreement remains connected to the land and binds all future owners of the land in question unless expressly excluded by the Agreement. It is discretionary, and enables the local authority to seek payments, from developers, as financial contributions towards infrastructure assets (including future maintenance costs). This generally relates to 'non-highway' assets but can include some 'highway' assets. For example, in respect of higher quality materials, improved transport network (e.g. quality bus lanes and traffic signals in the form of pedestrian crossings and signal junctions), and such items as open spaces, other 'green areas' and public art. However, this section would not generally be used in respect of highway infrastructure adoption and would not generally be appropriate to cover long-term maintenance liabilities.

A further relevant statutory agreement in respect of commuted sums is Section 104 (S104) of the Water Industry Act 1991. A S104 Agreement relates to construction of sewers, pumps and drains on developer's own land to be adopted and maintained by the water company following successful construction of the works and after the requisite maintenance period.

Highway infrastructure works are generally entered into under Section 38 (S38) or Section 278 (S278) of the Highways Act 1980, which are discretionary powers for the highway authority to enter into an agreement with a developer to adopt new highways or improve the highway.

S38 Agreements relate to the adoption of private internal estate roads built on the developer's own land which the developer, upon completion, wishes to be adopted by the highway authority as highway maintainable at the public expense.

S278 Agreements provide developers with a mechanism to either fund works, or undertake works themselves, to the existing public highway. The works are often termed 'off site works' as they are usually separate from the developer's site and the works are necessary to provide improved access to, or mitigate the effects of, the new development.

Considerable statutes and legislation exist that cover 'non highway' situations and that would be more appropriately used by district/borough, town or parish councils. These include provisions within the Local Government (Miscellaneous Provisions) Act 1982 and the Local Governments Acts 2000/2003.

2.3.1 COMMUTED SUMS IN RELATION TO SECTION 38 AGREEMENTS

S38(6) provides the power to seek commuted sum for the maintenance of the adopted highway:

"An agreement under this section may contain such provisions as to the dedication as a highway of any road or way to which the agreement relates, the bearing of the expenses of the construction, maintenance or improvement of any highway, road, bridge or viaduct to which the agreement relates and other relevant matters as the authority making the agreement thinks fit."

This clause was drafted in the widest possible terms in 1980. It appears to allow for a payment to be sought by the highway authority not only for 'maintenance' prior to adoption but also "other relevant matters as the authority making the agreement thinks fit", which may include a commuted sum for future maintenance following adoption. With the increased application of SUDS the additional costs of maintaining different forms of highway drainage systems can be included within this definition.

2.3.2 COMMUTED SUMS IN RELATION TO SECTION 278 AGREEMENTS

S278 provides that if a highway authority is satisfied that it would be of benefit to the public for them to enter into an agreement under this section with any person then they may do so. The agreement would be for carrying out, on the existing public highway, works that would be of benefit to the public, and the cost of those works are to be borne by the developer. The majority of the time, the work to be undertaken is carried out by the developer as they will usually have some effect on his development.

There is an express provision in S278 (3) for payments for the maintenance of the works, and this may be applied by the highway authority if it chooses to do so:

"An agreement under this section may provide for the making to the highway authority by the other party to the agreement of payments in respect of the maintenance of works to which the agreement relates and may contain such incidental and consequential provisions as appear to the highway authority to be necessary or expedient for the purposes of the agreement."

2.4 EARLY ADVICE TO DEVELOPERS

It is acknowledged that many of the current problems experienced by developers in respect of commuted sums, and other procedures, are as a result of inadequate knowledge as to the requirements of the highway authority. Consequently developers could be being burdened with additional costs at a very late stage.

It is recommended good practice for the developers to establish a dialogue with both the highway and planning authorities (which may be different authorities within the existing 'two tier' local government structure) at the earliest possible stage. This should preferably be prior to the land being purchased, and certainly before any planning application is submitted. The onus falls mainly on the developer to initiate this process. Although commuted sums relate to the final scheme, and the detailed design may not be decided on until after the land has been purchased, early dialogue can remove many of the uncertainties. The need for continuous dialogue ensures that, as schemes evolve, the financial implications are understood, rather than waiting until the end of the process.

This national guidance should provide developers with a degree of confidence as to the highway authority requirements, a consistency of approach, and more certainty as to what they will be expected to contribute.

2.5. USE OF S37 OF THE HIGHWAYS ACT

If a highway authority and developer are unable to agree on the conditions relating to a Section 38 Agreement, the developer can build the road and give notice to the LHA that he intends to dedicate the road as a highway. If the LHA refuses to adopt the road as highway the developer can apply to a magistrate court for an order that the proposed highway "will not be of sufficient utility to the public to justify it being maintained at public expense" (Section 37).

The aim of this guidance is to help avoid both the creation of new private streets, and the use of S37 (Highways Act, 1980) by developers for the dedication of parts of the highway (e.g. cul de sacs). Where practical and sensible, all new highways should be adopted by the highway authority regardless of perceived 'public utility' value – and without any uncertainties about the need, or otherwise, for commuted sum payments. As such, it is recommended that the use of S37 be avoided wherever possible, and that S38 should remain as the preferred method for highway adoption.

Highway authorities, under the "Advanced Payments Code", ensure that roads constructed in connection with a development are built to a suitable standard for adoption. The developers should not commence development without having first lodged an appropriate Bond or Agreement under S38, as set out in S219 of the Highways Act.

FINANCIAL CONSIDERATIONS

3.1 EXISTING FUNDING STREAMS

A general rule established in this guidance is that commuted sums will not be appropriate to be requested where existing funding streams are made available to the authority for the purposes of future maintenance of the specific assets.

The highway length maintained by LHAs is an input to the Relative Needs Formulae (RNF), which are designed to reflect the relative needs of individual authorities in providing services. However, they are not intended to measure the actual amount needed by any authority to provide local services, but to simply recognise the various factors which affect local authorities' costs locally. The RNF does not relate to the actual monetary amount of grant that an authority needs for providing services for its residents. In reality, this means that a local authority's Revenue Support Grant (RSG) allocation, whilst recognising increased highway length, does not necessarily translate into an increase in the overall allocation to the authority for that network, since many other factors come into play to produce the overall RSG figure. The grant allocation is not 'ring fenced' to highways, or indeed any specific service area.

Despite the foregoing, the premise of this guidance is that the RSG system recognises increased highway length in its grant allocation to LHAs and that, as such, commuted sums for 'standard' network adoptions are not appropriate to be charged regardless of the recognised increased liabilities that the LHA will incur, at least in the short term.

There is a further issue in that the highway lengths input into the formula are based on such lengths determined in the previous year. Whilst this inevitably means that there is a 'time lag' with RSG allocation, equally there should be very little maintenance in the early years of any development.

Note: The formula application by Government normally only accounts for a 'simple' road layout using 'standard' construction, for example:

- Carriageway, kerbs and associated footways
- Verge areas for service strips and visibility splays
- low level earthworks i.e. very minor lifting, or cutting, of carriageway into ground profile, and
- Street lighting, drainage and signing

A local authority also receives income from the Council Tax or business rates, from all new properties within any development area, which may contribute towards the future maintenance of the overall highway network through normal revenue funding.

At this stage the impact of the new Community Infrastructure Levy (CIL), introduced in the Planning Act 2008, is uncertain. The Bill allows for regulations to empower local councils to apply a CIL on new developments in their areas, to support infrastructure delivery. Although the possibilities are negligible, LHAs must ensure that any monies collected by this mechanism are not duplicated by commuted sum requests.

3.2 "RING FENCING" OF COMMUTED SUM MONIES

All monies received in respect of commuted sums should ideally be spent on the purpose for which they were intended (i.e. on the maintenance of the specific assets), but in reality this is considered impractical unless it is for a specific asset such as a bridge or public art. It is considered essential that, in general, commuted monies are re-invested into maintenance of the network, and 'ring-fenced' for that purpose.

The initial financial process should demonstrate the justification for the level of commuted sum set for each asset item. However, over such a long time period, there will be changes in maintenance practice and processes which will inevitably involve deviation from the original proposed maintenance regime. This should not be seen as an issue as highway authorities move to asset management practices, with the aim of ensuring that the general quality of the infrastructure is maintained to the appropriate standards.

It is recommended that highway authorities adopt a formal ('transparent') approach to commuted sums, and establish a protocol to ensure that the 'ring-fencing' of monies is achieved, at least to the highway maintenance budget, and preferably to the specific asset categories.

The protocol should allow for annual 'out-turn' reports to be produced to provide financial control, and ensure that the correct funds are transferred to the respective highway (or other asset) maintenance budgets for future years. Arrangements for setting up and administering the budgeting protocol will vary between authorities, but should be agreed by the budget holder(s) and the Finance Department.

Any commuted sums monies should be treated by the highway authority as additional to any considerations in respect of normal maintenance budget allocations for the year.

3.3 HIGHWAYS PFI

The above premise is appropriate to the situation in most LHAs. However, in LHAs where there is a highways (and/or street lighting) PFI in place, the situation may be different, and the principles of this guidance may need to be adapted.

Under a PFI the LHA has a contractual payment requirement for a long period (normally 25 years) which makes the valuation, and paying for the cost of change, (such as the adoption of new infrastructure), a particular issue. It is important that local authorities, when contemplating PFI schemes, should fully consider the commuted sums issue and adequately provide for it. It may be appropriate for the commuted sum fund to pay part of the monthly PFI service charge.

ASSET MANAGEMENT

4.1 RESPONSIBILITY FOR HIGHWAY MAINTENANCE

The highway authority has a statutory responsibility for the management and maintenance of the highway network which includes a need to keep the network safe for users. In order to do this, highway authorities should develop, implement and adhere to a carefully considered strategy. Traditionally, budgets for maintenance have been insufficient to meet the 'real' need of the network. As such, the maintenance of appropriate standards is a challenge for highway authorities, and which requires a formal and improved asset management approach.

4.2 ASSETS POTENTIALLY SUBJECT TO COMMUTED SUMS

Appendix 1 is based on current practice, and lists asset components for which commuted sums for future maintenance may potentially be sought, i.e. for which a developer may be liable to pay commuted sums in appropriate situations. This covers both 'highway' and 'non-highway' assets. For purposes of conformity, the table has been formatted in a similar way to that produced in the *Guidance Document for Highway Infrastructure Asset* Valuation[1]. It is also anticipated that identifying the asset groups and components with similar issues, will, in this way, assist in the determination of associated maintenance regimes and appropriate unit rates. It should also help with future work to determine a single definitive list of assets subject to commuted sums (with associated criteria) and, equally, a list of assets which are not subject to commuted sums.

Transfer of bridge ownership between bodies/private owners will normally be formalised with the payment of a commuted sum to reflect the maintenance liability which is transferred.

The table in Appendix 1 is not intended to be exhaustive and should be used as a general framework. It is anticipated that the list will vary by authority and should be adapted as necessary to suit the local situation. The items listed could generally be attributed to both S38 and S278 works, and could form the basis of the local commuted sums calculation, using a locally agreed schedule of rates.

At this stage there has not been any attempt to determine standardised unit rates. This exercise is seen as aligning very closely to current highway authority asset valuation exercises as part of Transport Asset Management Plan (TAMP) developments. It is recommended that the work of existing valuation groups be extended to include this aspect.

The associated activities/functions that may also be included in the calculation of commuted sums may include:

- Inspections and surveys
- Routine and cyclic maintenance
- Winter maintenance
- Energy charges
- Design and supervision

It is assumed that the costs of any accident, and unpredicted damage (e.g. flood damage/vandalism), caused after adoption can be recovered by the highway authority from the perpetrator, and should generally be an accepted risk for the authority. However, some authorities may have difficulties with regard to cost recovery as a result of vandalism and, where the risk can be clearly demonstrated, LHAs may wish to make appropriate and reasonable allowance in their commuted sum calculations for such unrecoverable costs.

4.3 ASSET LIFECYCLES AND MAINTENANCE REGIMES

Much work has already been carried out nationally in respect of asset lifecycles and maintenance regimes, but more work is still needed in respect of understanding of modern materials and their maintenance requirements. These issues are fundamental to asset management, and should be considered by each highway authority as part of the development of their individual HAMPS. This could help, for example, to inform or adjust the time period for the calculation of commuted sums (see Appendix 5).

Highway authorities either individually, or in regional/national groups, are encouraged to set up materials databases; and this is especially useful where special materials are associated with commuted sums. Such databases should be used to monitor the performance of 'non standard' materials, and street furniture, with a view to expanding their list of 'standard' materials that would not require commuted sum payments from developers.

The lifecycle, and maintenance regime, for an asset will be dependent on the initial design specification and local standards adopted. This is currently an area for negotiation between the developer and highway authority, but it is the aim of this guidance that the publication of clear local standards for asset design and maintenance will reduce the variations in the approach taken. A 'whole life costing' approach (looking at the most economic maintenance regime over the life of the asset) should be used for calculating commuted sums, involving the discounting of future maintenance costs based on the year they are expected to arise (see Appendix 5). Typical issues to be considered are:

- Hierarchy, network type and location
- Specification and materials
- Maintenance practices/frequencies of intervention

For the calculation of commuted sums to be transparent and equitable, having local standards published in the local HAMP, or Maintenance Plan, will ensure that the mechanism for deciding upon eligible commuted sums are readily available and auditable.

4.4 LEVELS OF SERVICE

In addition to the specific aspects required for its effective functioning, each asset should also be looked at in respect of its contribution to the overall service requirements of each highway authority. This is a complex issue which highway authorities will consider within their HAMP development and at some stage, may be developed further for commuted sum calculation considerations.

The aim of this guidance is to help improve standards across the whole of the 'public realm', but it is recognised that there is still a considerable 'education' exercise to be undertaken nationally with both the collation of existing information, and the sharing of good practice.

[1] Guidance Document for Highway Infrastructure Asset Valuation; Roads Liaison Group, July 2005; TSO

PROCESS, PRACTICE AND PROCEDURES

5.1 STANDARD CONSTRUCTION

'Standard' construction definitions will typically include (as a minimum):

- Carriageway surfaced in flexible construction to the normal standard of the highway authority
- Footway surfaced in asphaltic materials and (for many LHAs) block paving to the normal standard of the highway authority
- Gully drainage and connections (not associated with adoptable surface water sewers)
- Standard street lighting layouts, columns and lanterns included within the authority's lighting policy
- Highway signing, or other features associated with safe design (traffic indicator bollards etc)
- Precast concrete and granite kerbing, and
- Pedestrian guard rails and road restraint systems

'Non-standard' is defined as all construction types or materials that are not included in the definition of 'standard' construction within the highway authority's specification.

Although individual highway authorities will have flexibility to determine their own 'standard' specification and construction details based on local circumstances, the above definitions should normally apply.

With the national trend towards innovation, and higher quality design (as advocated by the MfS philosophy) as well as many planning authorities encouraging certain construction materials to be used (or even insisting in Conservation Areas and the like), the highway authority should be encouraged to be more flexible in its approach e.g. they may reduce, or waive, any commuted sums requirements, particularly on the basis of maintenance experience of particular types of asset, where robustness is proven.

At this stage, some highway authorities (particularly those with both planning and highway functions) may feel unable to adopt such a flexible approach, even though enhanced materials may be included within their design guide, and positive encouragement given to developers to use higher quality materials. In such situations it is suggested that the above definitions be utilised for commuted sums purposes, but it is imperative that a developer is advised of this situation at the earliest possible time.

In many authorities the design guide could be used as the 'standard' (e.g. minimum requirements) for the purposes of determining commuted sums, and as setting out which designs can incorporate higher quality materials that are acceptable to the highway authority without attracting a commuted sum payment.

As part of the dialogue between the developer and the highway authority, consideration should be given to minimising the future maintenance liability as part of the design process. Again, this could include enhanced construction (i.e. to reduce any maintenance requirements) or for the provision of higher quality materials, which should then offset all or part of the need for any commuted sum requirement. The asset categories list should be verified locally and each authority should create its own standard items list, which can be added to as additional items are added for adoption.

5.2 COMMUTED SUM PRINCIPLES

This guidance proposes several principles which are expanded in various sections. They are that:

- The guidance is equally applicable to both S278 and S38 adoptions, albeit that they are different situations (see note below)
- For newly constructed infrastructure, commuted sums are not generally considered appropriate where there are other sources of funding to cover ongoing maintenance.
  Note: For older existing infrastructure, adoption or transfer of ownership of any asset may require substantial pre-adoption remedial work, or for the impaired condition to be reflected in the commuted sum calculation (if appropriate). This will particularly apply to the taking over of old 'under-maintained' bridges etc. and will accord with the guidance in *Management of Structures: A Code of Practice* (Section 4.8.5)[1].
- As far as possible, all assets should be treated on the same basis for commuted sum calculation purposes.
- The historic acceptance of the basis of application of commuted sums in respect of adoption of bridges and structures should remain.
- All new works, including SUDS, carried out as part of a S278 Agreement, are appropriate for application of commuted sums.
- There should not be any requirement to calculate any 'degree of benefit' to the local authority in respect of commuted sums for S278 works, even where such works are considered to provide some benefit to the general public (e.g. an improved junction layout with enhanced pedestrian facilities being provided).
- Under S278, commuted sums are not applicable to additional works, required by the highway authority, which are merely for aesthetic rather than for design reasons (e.g. full width resurfacing where only part width would be necessary to accommodate a new junction).
- Where S38 works are deemed as 'standard' construction, commuted sums are not generally applicable. However, they should be applied for the 'extra over' areas and 'extra over' costs of exceptional items and specialist materials etc.

Note: S38 relates to the creation of additional lengths and/or areas of highway to be adopted. Commuted sums are generally payable for 'extra over' costs which are deemed, by the highway authority, to be placing an extra burden on the maintenance budget. This guidance recommends 60 years as a default period to be covered by S38 works (see Appendix 5) so it is essential 'extra over' areas and costs are carefully defined so that developers are not burdened with unjustified costs.

- Although there is not any legal requirement to provide lighting, the provision of 'standard' street lighting within S38 works will not generally be subject to commuted sums.
- There should not be any retrospective application of this guidance, and it should only apply to Agreements entered into after the publication date of this document. Where applicable, users should be given adequate time (as agreed by both parties) to modify their approach in time for the changes to take effect.

An overriding principle is that commuted sums should be calculated objectively and as fairly as possible to reflect the genuine present day value of predicted future costs which they are designed to service.

5.3 ELEMENTS OF HIGHWAY INFRASTRUCTURE FOR WHICH COMMUTED SUMS MAY BE PAYABLE BY DEVELOPERS

Commuted sums charged from developers for adoption, will generally cover the following circumstances:

- Additional areas of carriageway, footway, landscaping etc. over and above the minimum requirements (i.e. additional areas which are not required for the safe functioning of the highway)
- Any street furniture not required for road safety purposes (as would normally be the situation on residential streets)
- Any culvert, bridge, retaining wall or other structure
- Special features such as noise fencing and traffic signals

Continues overleaf...

[1] UK Bridges Board (2005), *Management of Structures: A Code of Practice*, London: TSO, available from www.ukroadsliaisongroup.org.uk

Continued from overleaf...

- Any soft landscaping in excess of the areas of grass verge over and above the minimum requirements of the authority (including trees)
  Note: Wherever possible, these areas should be adopted as public open space or at least formal arrangements be made for care by the authority responsible for landscaping
- The installation of specialist or 'non-standard' equipment (e.g. street lighting equipment) that is not of the authority's standard type, and/or such items as decorative luminaires, or columns with embellishments applied etc.
- The additional columns (and equipment) from the provision of street lighting to a standard above that which is normally provided by the authority (and indicated in its lighting policy)
- The use of any materials (e.g. surfacing materials), which whilst being approved will result in maintenance or replacement costs over and above the authority's 'standard' specification;
- Any other 'non-standard' construction types or materials
- Unusual drainage systems including on-line storage, hydro breaks, pumping stations, open watercourses, sustainable drainage systems (SUDS), permeable paving, swales and soakaways; and
- 'Non- highway' assets such as street art and public open spaces

The overall intent is to give the highway authority greater flexibility to adopt 'non-standard' layouts and materials without placing undue burdens either on its maintenance budget or its Council Tax payers.

Regardless of the potential offer of a commuted sum payment, the highway authority will retain discretion as to what it is prepared to adopt, particularly where a proposal may not be acceptable in principle (e.g. on highway safety grounds) or where it would be inappropriate for it to do so (e.g. street art, play areas); or where materials are considered to be of an unacceptable or inappropriate specification.

Appendix 1 identifies the specific asset types, and components, for which commuted sums may be sought.

5.4 THE APPLICATION AND AGREEMENT PROCESS

A typical commuted sum procedure in connection with highway adoption from a developer is indicated at Appendix 2.

For a LHA, the circumstances relating to the seeking of commuted sums for future maintenance, can generally be divided into four broad situations, namely:

(i) 'Additional' areas not required for normal highways purposes.
(ii) 'Extra over' items
(iii) Alternative materials, and
(iv) Sustainable Drainage Systems (SUDS).

These could equally apply to S38 and S278 works, and are expanded in Appendix 4.

5.5 CALCULATING THE ACTUAL COMMUTED SUMS TO BE PAID

The developer will be required by the relevant Agreement with the highway authority to pay a commuted sum. However, it is unlikely that the full cost implications of the site will be known by the authority at that stage. It is recommended that the authority calculates the final commuted sums value immediately before the development infrastructure is adopted. This should be based on the 'provisional' commuted sums agreed at the Agreement stage. The Agreement should contain provision for recalculating the 'provisional' commuted sums based on actual quantities, revised time periods to maintenance operations if appropriate, and a price fluctuation factor to adjust current costs and maintenance operations specified in the Agreement (see Appendix 7).

There are some concerns about the use of provisional and final commuted sum payments in the event of either developer liquidation or a significant increase in the final sum compared to the provisional, resulting in dispute. In this situation, some form of 'dispute resolution' mechanism may need to be set up.

In the case of specialist landscaping materials, lighting columns and signs, where finding replacements in future years could prove to be difficult, an option could be for the highway authority to request a stockpile of material and adjust the commuted sum payment requirement accordingly. This option would allow for any replacement specialist paving type materials to 'weather' on the same basis as the original, but may be a problem with storage for many authorities and is not regarded as an acceptable solution in the medium to longer term.

The commuted sums should be adjusted periodically to accommodate any price fluctuations. This could be carried out by using current contract rates, and appropriate cost indices e.g. Baxter Index or the Department for Business Innovations & Skills (BIS) ROCOS Index.

5.6 BONDING OF COMMUTED SUMS

Any commuted sums should be included in the Bond required under the S38 or S278 Agreement, unless payment is made prior to engrossment of the Agreement. This should be based on the 'provisional' commuted sums calculated when the Agreement is completed, and released following satisfactory completion of the maintenance period and payment of the commuted sum.

5.7 TIMING OF PAYMENTS

The issue of when any commuted sum payment is to be made will be dependent on the individual highway authority, and may be on the execution of the Agreement or prior to the Final Certificate being issued, or even after. It is recommended that, as normal practice, the commuted sum be payable before issue of the Final Certificate, and following satisfactory completion of the maintenance period by the developer, i.e. immediately before formal adoption.

The time period between the Agreement and completion of the development can be quite long. As such, recalculation of the sum calculated at the time of the Agreement will be necessary to arrive at the commuted sum payable prior to the issue of the Final Certificate. (See Appendix 7, which illustrates relevant clauses from a typical council's standard S278 and S38 Agreements).

5.8 SCOPE FOR VARIATION

As already discussed, this guidance is advisory, but it is recommended that the principles be adopted by all authorities and developers. The guidance allows for flexibility of approach and ability to stimulate any mutually agreed amendments. This guidance is not retrospective, and should only be applied to those schemes where funding negotiations have not been completed, and on all new negotiations; it being important to allow sufficient time to introduce the new procedures.

It is accepted that 'standard' construction types, and materials, will vary from one authority to another but the principles of this document should remain.

As mentioned in Section 4.2, this document does not propose any unit rates for maintenance costs to be used within the commuted sum calculations. It is not considered that these can be standardised on a national basis at the moment, as it is inevitable that these will vary, at least by region.

5.9 RISK

Risk is acknowledged as a primary consideration in the calculation of the scale of commuted sum requirements, and it is incumbent on the adopting authority to understand such risk by making use of the available data/experience both locally and nationally.

Whilst it is accepted that there is a certain element of risk, to all parties, with regard to such issues as the use of new materials and SUDS (where, as yet, there may be insufficient evaluation), and the life of a development and so on, it is felt that any such risk can be minimised by the use of the standard procedures advocated in this document.

Risk transfer to the highway authority taking over the asset is effected once any commuted sum payment is received, and the asset adopted (or as otherwise set out in the Agreement).

It is important that a degree of flexibility, and scope for innovation, is maintained within the process. It is expected that the adoption of this guidance should not hinder this situation.

5.10 THE WAY FORWARD

This guidance provides a basis for negotiation that can be followed by all parties. It attempts to take a fair and balanced view, but it will be for the parties in each particular case to flesh out the framework it provides. The aim is to create a consistent and transparent approach, and a 'base' position from which to move forward.

It is important that the guidance should not be used for any form of retrospective consideration. It should only be used for future agreements, with sufficient time being allowed to introduce the new procedures.

ASSET CATEGORIES FOR WHICH COMMUTED SUMS MAY POTENTIALLY BE SOUGHT

LEVEL 1 ASSET TYPE	LEVEL 2 ASSET GROUP	LEVEL 3 ASSET COMPONENTS
Carriageway Surfacing	Hot Rolled Asphalt Negative Texture Surfacings (Thin Surface Course) Asphalt Concrete (Bituminous macadam) Surface dressing High friction surfacing Pigmented Block paving Modular paving	Paved area Hard strip/ hard shoulder Lay-by/parking bay Central reserve Roundabout (incl. mini) Dedicated turning lane Hammerhead/turning area Traffic island
Carriageway Ancillaries	Kerbs Road markings Road studs	Bull-nose/full batter/half batter Granite Safety kerb Bus stop kerbs Dropped kerbs Line/text/symbol/numeral etc. Cored Adhesive
Footways, cycleways & paved verges (incl PROW)	Asphalt Concrete (Bituminous macadam) Pigmented (binder, aggregates or chippings) Block paving Modular paving Tactile paving Unbound surfacing	Paved area – attached to carriageway Paved area – remote from carriageway Footpaths and Bridleways Off road cycle routes Paved visibility splays
	Footway ancillaries	Vehicle crossovers Kerbs Markings Edgings Stiles and gates
Fences & barriers	Safety barriers	Steel safety barriers Concrete safety barriers Pedestrian guardrail Parapets
	Amenity Fencing	Knee-rail fencing Boundary fencing Noise fencing
Structures	Bridges Major Structures Miscellaneous Structures Tunnels	Subways Culverts Retaining walls Head walls Sign/signal gantries and cantilever road signs Fords and causeways Cattle grids
Street lighting	Standard Architectural High mast Wall mounted lighting Decorative lit bollards Subway/bridge lighting	Column Foundation Lantern Control gear, switching, cabling, feeder pillars etc.
Street Furniture	Urban, Suburban, Rural	Bus shelters (where these are highway authority assets) Bus stop poles and flags Seating Litter bins Dog bins Bollards Marker posts Street name plates Cycle racks Benches Hanging baskets Planters Raised beds Tree pit grating Tree supports/protection
Verges and landscaped areas	Earthworks	Embankments Structural earthworks Cuttings Reinforced earth
	Vegetation	Grass Trees Plants Shrubs Hedges
Traffic / pedestrian management	Traffic signals Pedestrian signals Illuminated traffic signs Non-illuminated traffic signs Illuminated pedestrian signs Non-illuminated pedestrian signs Illuminated bollards Heritage pedestrian signs Finger posts Gateway signs Information signs Variable message signs Rotating plank signs	Signal, column and foundation Control equipment and cables Bulbs Sign, column and foundation Control equipment and cables
	Traffic calming	Speed bumps/humps Side road entry cushions/tables Chicanes Speed cameras Traffic island Pedestrian refuge Rumble strips
	Hydraulic bollard systems	
	CCTV	

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LEVEL 1 ASSET TYPE	LEVEL 2 ASSET GROUP	LEVEL 3 ASSET COMPONENTS
Drainage	SUDS, Positive Drainage, Soakaways	Petrol interceptors Pumping stations Gullies Pipework/connections Channels Access chambers Ponds Combined kerb drainage units
		Grips Hydro-brakes
		Storage chambers/tanks Balancing ponds Ditches Reed beds Control valves Catchpits Swales Infiltration Trenches Filtration trenches Permeable Paving Infiltration blankets Storage blankets Dry detention Basins Wet detention basins Tidal flaps, suburbs
Public Open Spaces	Specialist activity areas	Bowling greens Tennis courts Athletics tracks Pitches Allotments
	Play areas	Community gardens Playing fields Equipped play space Informal recreational areas
	Public amenity areas	Landscaping
	Public art	Street art
Miscellaneous	Pay and display / parking ticket machines	

TYPICAL COMMUTED SUM (CS) PROCEDURE FOR S38 & S278 ADOPTIONS

Initial Discussions
Developer/Planning & Highway Authorities
With respect to development proposal

Issues identified by Planning & Highway Authorities including any CS requirements in principle → Developer confirms land purchase

Planning Application → Consult Highway Authority

Application Processed

Highway Authority calculates 'provisional' CS requirements (eg. "non-standard" and "extra over" items etc) to be included in Bond

Consultation on more specialist inventory items eg. Bridges where site evaluation may be required

Draft section38/278 Agreement prepared by Legal Department

Consultation & final Agreement incl.
CS requirement within Bond figure

Works completed → Assessment of any design changes that would affect CS's

CS recalculated including indexation

After maintenanceperiod
Developer invoiced for CS payment & Commuted Sum paid by Developer

Final certificate issued → Bond Released → Budget holders informed accordingly

Road Network adopted & Maintenance carried out to agreed frquency & funding allocation

EXAMPLES OF SITUATIONS THAT MAY INCUR COMMUTED SUMS IN RELATION TO SECTION 38

(Source: Leicestershire County Council – www.leics.gov.uk/htd)

The following examples show some types of layout or features that may incur commuted sums. Additional areas such as "squares" as shown in Figures A3.1 and A3.3 are not necessary for highway purposes and will result in an additional maintenance liability for the highway authority.

Both examples also show trees within the adoptable area which may also need to be covered by a commuted sum. Structures such as retaining walls (Figure A3.2) which support the highway will also become the responsibility of the highway authority to maintain and may incur a commuted sum. The last example (Figure A3.4) shows bollards around the inside radius of a bend to prevent overrun and parking, and trees, both of which are beyond the typical features the highway authority would expect to maintain. Both features may incur a commuted sum.

Figure A3.1 Additional areas beyond typical highway requirements

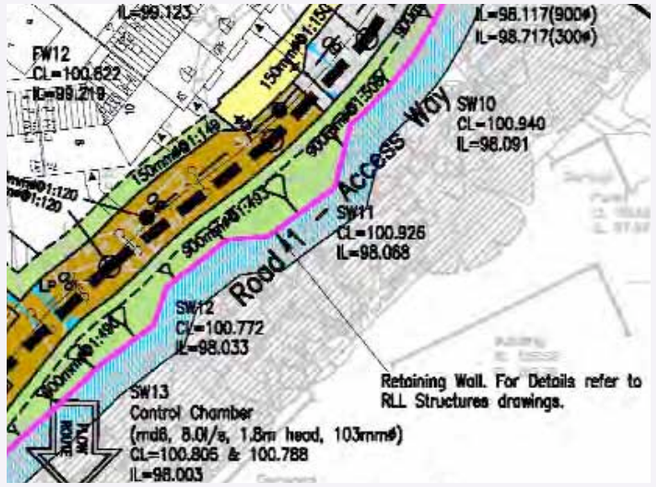

Figure A3.2 H/w Retaining Structures

Figure A3.3 Additional areas beyond typical highway requirements

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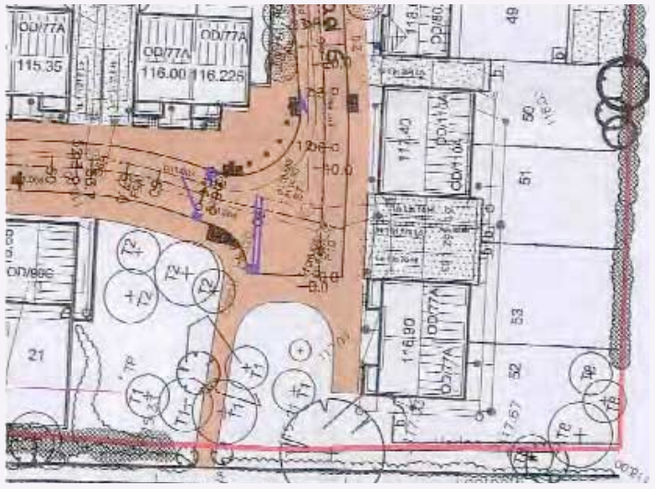

Figure A3.4 Highways Features – Bollards

TYPICAL SITUATIONS WHERE COMMUTED SUMS MAY BE SOUGHT ON ADOPTION OF DEVELOPMENTS

'ADDITIONAL' AREAS NOT REQUIRED FOR NORMAL HIGHWAY PURPOSES

(Source: Leicestershire County Council – www.leics.gov.uk/htd)

The cost of maintaining areas and construction which, under the highway authority's normal design guidance are not required for the safe and satisfactory functioning of the highway.

Examples are a "square" i.e. additional areas of carriageway, such as extended areas beyond the normal width of a turning head (see figure A4.1), hard landscaping, grass verges (see figure A4.2) and so on.

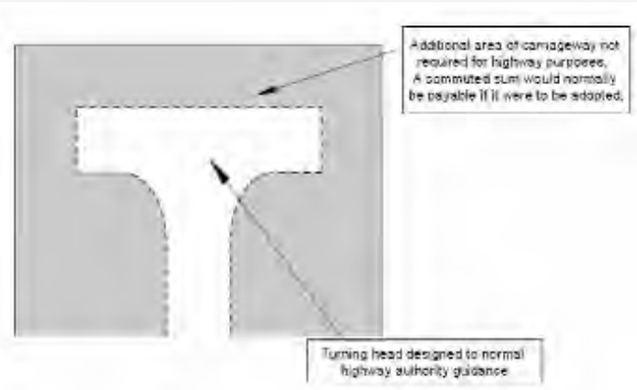

Figure A4.1 Example of turning head within extended areas beyond the normal width of a turning head

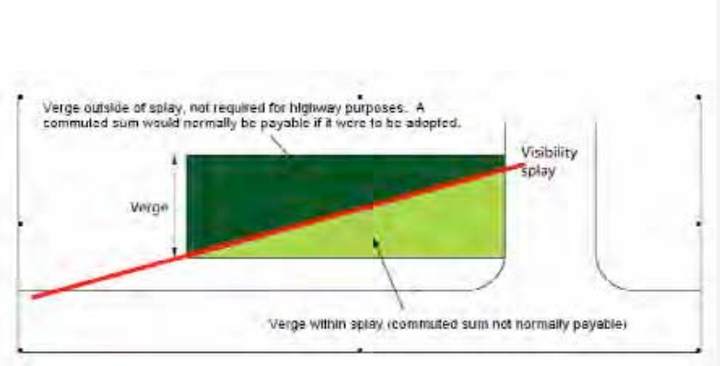

Figure A4.2 Example of additional area of grass verge adopted under a commuted sum

It is expected that, as LHAs embrace the design principles advocated in MfS, these types of examples may become less appropriate. The expectancy being that the more informal types of layout will be accepted by LHAs within their revised design standards.

Currently, within this heading a developer may be required to pay commuted sums for future maintenance in respect of:

- For new adoptable highways generally constructed under S38 Agreements – Any additional areas and construction which result from the overall development layout design, which are over and above that which the highway authority would normally require to satisfy safety and operational requirements; and
- Alterations carried out to existing highways under S278 Agreements. Some highway authorities may consider waiving any commuted sums where the alterations had already been programmed for construction by them.

'EXTRA-OVER' ITEMS

In relation to S38, the cost of maintaining some features of the adoptable works which can be considered as 'extra over' the normal design. Examples include highway structures, public transport infrastructure, landscaping, trees and shrubs, and special features such as noise fencing.

These costs represent an increase in the highway authority's future maintenance liability which will be more than the anticipated normal funding generated by the development. Where commuted sums are appropriate, it is the difference in cost between the assets provided and the 'standard', that will be subject to a payment for future maintenance.

Note: Specialist items, such as traffic signals, are generally only provided in relation to S278 works where it is the full cost that should be used.

ALTERNATIVE MATERIALS

The additional cost of maintaining permitted alternative materials and features which are 'non-standard'. Examples include proprietary surfacing materials, permeable paving and decorative street lighting equipment. These additional costs are in excess of that which the highway authority would have incurred if the materials and features used had been to the 'standard' specification. Again, where commuted sums are appropriate, it is the difference in cost between the assets provided and the 'standard', that will be subject to a payment for future maintenance.

SUDS

Sustainable drainage systems (SUDS) might include, for example, permeable paving, flow-attenuation devices, swales and storage areas. This is a relatively new area for highway authorities and, as such, current operating experience is limited, but use should be made of existing industry knowledge.

The adoption of SUDS, without the need for commuted sum payments, is encouraged wherever possible. Features such as swales of 'run-off' areas both pre-treat water that will eventually reach open water course and filter silts, reducing maintenance on underground pipework, minimising the risk of blockages and localised flooding which may result. Pre-treatment of surface water 'run-off' from the highway and parking areas is particularly beneficial as it restricts the amount of hydro-carbons which run into the storm system, improving water quality in the areas and minimising damage to wildlife and eco-systems.

Current Defra consultation on improving surface water drainage makes reference to commuted sums in relation to SUDS. Relevant extracts from the document (Improving Surface Water Drainage) are:

3.33 If capital works were needed on SUDS infrastructure, the expenditure by local authorities would be classed as public expenditure, and be subject to public sector borrowing controls. However, capital SUDS works would not normally need to be undertaken by the body responsible for their adoption and maintenance. Rather, it would rest with the adopting body to ensure that all SUDS provided by developers are properly designed and built. It would also be important to ensure that SUDS maintenance and renewal works be financed through an ongoing funding mechanism that enables appropriate service levels to be sustained.

3.34 If adoption of SUDS results in net additional costs to local authorities, the local authority will ensure that these are fully funded as required under the Government's new burdens rules.

3.65 The maintenance of SUDS is sometimes funded through commuted sums made by developers to organisations that are currently accepting the responsibility of SUDS. This form of funding can be rather inflexible and can be both site specific and time limited. It can also be a cause of difficult negotiation between parties, may be inequitable, and is a disincentive to SUDS. The Government wishes to move the funding of the maintenance of SUDS and the charges on to a basis which meets the needs of the service provider, is equitable and does not disincentivise the uptake of SUDS.

THE CALCULATION METHODOLOGY

CALCULATING COMMUTED SUMS

There are a number of variations on the formulae that have been used for calculating commuted sums. The essential feature is that the commuted sum paid is discounted to allow for the fact that it will be earning interest which will make up part of the maintenance payment when it is required. . It is therefore necessary to determine the net present value of a future expense, and the following formula is recommended to be used to calculate the maintenance obligation:

Net present value = $\Sigma Mp/(1 + D/100)T$, where

Mp = Estimated future maintenance cost T years from now
D = Discount rate (effective annual interest rate) (%)
T = Time period before expenditure will be incurred (years)

Commuted sum = summation of all net present values for appropriate future costs

MAINTENANCE COST (MP)

This guidance does not provide any cost information. The normal method would be for the highway authority to use its current contract rates. The maintenance regime generally being based on a 'whole life costing' approach with the frequency of treatment, and/or the intervals of replacement, based on planned frequencies or historic information (see Section 4). It may also be appropriate to add an agreed percentage to the works costs to cover the highway authority design and supervision costs.

PERIODIC DISCOUNT RATE (D)

The recommended discount rate (effective annual interest rate) is 2.2%, and is worked out as follows:

D = ((1.045/1.0225) – 1) x 100

= 2.2%

where 1.045 is the interest rate (4.5% based on long-term neutral base rate), 1.0225 is the inflation rate (2.25% based on RPI-X that is RPI excluding mortgage payments). This formula ensures that both the interest earned on the commuted sum, and the effect of inflation in increasing the cash sums eventually required, are taken into account.

It is not recommended to use a discount rate of 3.5% for two reasons:

- It is the government's rate for project appraisal, which is not the same process as calculating commuted sums
- It does not take account of inflation, and therefore tend to result in commuted sums which are too small.

Commuted sum calculations can be very sensitive to variations in the adopted discount rate.

Time period (T)

When the life of a development is 60 years or more, it is recommended that a period of 60 years be used as the default period for calculating commuted sums for future maintenance.

The period of 60 years is conventionally used as the life of housing and highways assets. 60 years for commuted sums represents a reasonable compromise between covering future costs and the uncertainties over whether they will be required in the future.

- Commuted sums will need to include for replacement of assets with a shorter life than that expected for the development.

The potential exceptions to the use of this time period are:

- Where assets have been constructed to serve a development that is intended to have less than 60 years life. In such situations it is reasonable to use the expected life of the development as the period for which commuted sums for future maintenance should be sought
- Where commuted sums for maintenance of assets adopted under S278 cover a period of, say, 15 or 30 years until major repair/refurbishment, this period should continue to be used
- Where a highway authority or other body is adopting a substantial asset (e.g. a bridge) which forms part of a public network (particularly where it is part of the strategic network) rather than serving a development. Where the need for the asset is long-term, it is reasonable to seek commuted sums covering replacement of the asset, provided that there is a strong likelihood that it will be needed for a period longer than 60 years.

The Bridge Management Code (section 4.8.9) recommends taking a life of 120 years adjusted to reflect any 'whole life cost' analysis indication of a reduced economic remaining life. Calculations for such time periods will frequently include provision for complete replacement of a structure in addition to maintenance operations.

Note: If a highway authority considers that a different rate or time period should be used due to changing circumstances (e.g. transfer of a bridge which will be required in perpetuity), the reasons for doing so and the calculations used must be made explicit.

TYPICAL COMMUTED SUM CALCULATION EXAMPLES

The following examples are amongst those sent as contributions towards identifying good practice in levying commuted sums. Each example is qualified by comment whether it is considered good practice, or otherwise.

EXAMPLE ONE

TYPICAL COMMUTED SUM FOR ADDITIONAL COST OF HERITAGE LIGHTING (Lancashire CC) (from report of CSS Lighting Working Group 2003)

Method:
Calculate additional maintenance cost over life of the installation (30 years).

Additional cost is:
Lanterns – renew all after 15 years
Replace 10% of complete units due to damage during 30 years.
(in each case being extra cost over standard equipment)
Divide total additional cost by 30 to give annual cost.
Invest a sum, which will yield that annual amount on an interest rate of 3.5%.

Example Calculation:

	Standard (£)		Heritage (£)		Extra (£)
Lantern	110	340		230	
Column	35	170		135	
Total		**145**	**510**		**365**

There are 18 no. units on the installation

10% – 2 units.

Additional cost of lanterns	=	18 x £230	=	£4,140
Additional cost of complete units	=	2 x £365	=	£ 730
		Total	**=**	**£4,870**

Annual amount **= 4870/30 = £162**

Commuted sum **= 162/0.035 = £4,628**

However, as the lanterns require replacement every 15 years, this example appears to understate the total amount required by £4,140 – the cost of replacing the lanterns in Year 30 as well as Year 15. This would give a total cost of £9,010 (£4870+£4,170) and an annual cost of £300 per year. The commuted sum would be:

£300/0.035 = £8,571

Comments
This is a good example of identifying additional maintenance costs for which it is appropriate to seek commuted sums.

It is considered that a discount rate of 2.2%, which takes into account inflation, is better than 3.5% which is likely to result in the LHA finding the commuted sum insufficient as cash maintenance costs rise with inflation.

The calculation used above will result in the LHA still holding the £4,628 (or £8,571) commuted sum figure at the end of 30 years, as this is the principal sum to provide the annual maintenance cost in perpetuity rather than for 30 years. This is not of major concern for the size of figures used in the example, but the sums involved for a LHA for adopting a real development could be large. It is recommended that the commuted sum be calculated by summing the present values (PVs) of the annual maintenance cost of £162 (or £300 covering an additional lantern replacement) for each of the 30 years. In the table below we show the PVs for £300 per annum at a discount rate of 2.2%, and sum them to give a commuted sum of £6,544.

Present Values of £300 per annum at a discount rate of 2.2%

	£
Yr 1	300
Yr 2	287
Yr 3	281
Yr4	275
Yr5	269
Yr6	263
Yr7	258
Yr8	252
Yr9	247
Yr10	241
Yr11	236
Yr12	231
Yr13	226
Yr14	221
Yr15	216
Yr16	212
Yr17	207
Yr18	203
Yr19	198
Yr20	194
Yr21	190
Yr22	186
Yr23	182
Yr24	178
Yr25	174
Yr26	170
Yr27	167
Yr28	163
Yr29	160
Yr30	156

Commuted Sum 6,544

In line with the recommendation that the default period for commuted sums for adoptions under S38 should be 60 years, it is considered that there should be a justification for the use of 30 years as the time period. In practice, if there has been a policy decision on this, it would not be required with every calculation.

EXAMPLE TWO

Extract from CSS Guidance Notes on Commuted Sums for Bridges – 3rd Draft, CSS 2005

Sum To Provide Costs Of Reconstructions (SUM A)
All reconstructions up to and including 150 years from ownership transfer are taken into account.

$$\text{Sum A} = \sum \frac{\text{cost of reconstruction at current prices}}{(1+d)^y}$$

for each reconstruction, y years from now up to and including 150 years

Example

A culvert has an expected life of 20 years and will then be replaced by a corrugated steel buried pipe at an estimated present day cost of £18,000 with a life of 120 years.

Reconstructions will take place after 20 and 140 years at a present day cost of £18000. It is therefore necessary to add the net present values of £18000 calculated for these time periods. Our note: the discount rates shown below are 3.5% at 20 years and 2% at 140 years which appears to be in line with Treasury advice on reducing discount rates for appraisals)

Net Present Value of reconstructions

$$\Sigma A = 18000 \times \frac{1}{(1+0.035)20} + 18000 \times \frac{1}{(1+0.02)140}$$

(using discount rate of 3.5% for 20 years and 2.0% for 140 years (see comment)

= 18000 (0.50257 + 0.06251)

= £10171.44

The sum to provide costs of reconstructions of the culvert 20 and 140 years from now is £10,171.

Comments

This is a textbook example of the application of the preferred formula for calculating the commuted sum of future maintenance activities.

It is recommend that the use of a single discount rate of 2.2% for the reasons stated in Appendix 5.

It is considered that a very strong justification is required for levying a commuted sum for an event 140 years into the future. In this example the PV of £18,000 in 140 years is £1,125. Given the possible high degree of uncertainty that the work will be required, and uncertainty over the cost of replacement in the middle of the 22nd century, the justification for requiring a commuted sum of £10000 to meet replacement costs is questionable. Nevertheless there are occasions when bridges on major highway routes transfer between authorities, and there is every reason to assume that those routes will exist in perpetuity. In those cases, depending on the discount rate being used, there is a point beyond which the present value of costs becomes insignificant. Calculations can therefore be curtailed accordingly.

Sum To Meet Costs Of Predictable Maintenance (SUM B)

CSS have prepared a table which lists average maintenance costs and anticipated intervals at which they are anticipated to occur, for a range of structural types and elements (these are set out in a table in the CSS guidance notes).

These figures were derived for a rural authority bridge stock in 1996. They may not be appropriate in some situations, and other figures may be substituted if available. Further guidance on periodic bridge maintenance costs for highway bridges is available in Departmental Standard BD 36.

The CSS costs can be used in conjunction with Table 3's discount factors (below) to calculate the present sum of money required to meet the cost of all predictable maintenance of an asset throughout the next 150 years (SUM B). Where the cost figures provided in Table 4 are used, SUM B is adjusted from 1996 to current prices for incorporation in the commuted sum.

The CSS's table of costs (updated from 1996 to current values) can be used in conjunction with their table of discount factors (below) to calculate the present sum of money required to meet the cost of all predictable maintenance of an asset throughout the next 150 years (SUM B).

Maintenance Discount Factors

For cyclical costs which are predicted to occur at fixed intervals over the entire life of the structure, [appropriate] values of: $\frac{1}{(1+d)y}$

(where d is the discount rate and y the year in which maintenance occurs) can be combined to give a maintenance discount factor for the relevant time interval. These factors are listed in Table 3 below.

'Table 3' Maintenance Discount Factors for a period of 150 years. Discount rate 3.5%

Maintenance Interval (years)	**Discount Factor D Reconstruction after 120 years)**	**Discount Factor D (No reconstruction)**
2	17.01636	17.06801
5	6.44318	6.49484
7½	4.13358	4.18524
10	2.98629	3.03795
15	1.79976	1.85142
20	1.26472	1.31638
30	0.68565	0.73731
40	0.44526	0.49692
50	0.36404	0.41570

For example, the discount factor for 15 yearly maintenance = 1.79976 (in bold above). This is made up of the sum of the individual 15 yearly discount factors: 0.59689 + 0.35628 + 0.26444 + 0.16973 + 0.10895 + 0.10836 + 0.07482 + 0 (reconstruction year) + 0.06902 + 0.05128

Calculation Example

From CSS table: replacement of a bridge joint every 15 years.
Cost for 25 metres @ £580 per metre = £14,500

Commuted sum for a maintenance period of 150 years is:

Cost every 15 years X discount factor for 15 yearly maintenance from 'Table 3'

£14,500 x 1.79976 = £26,097

Maintenance Discount Factor tables can be drawn up for any asset maintenance period to speed up calculations.

Comment

The material above is a good example of systematising information on costs and discount factors for certainty of obligation and ease of calculation, although, as previously noted, it is recommended that a discount rate of 2.2% rather than the 3.5% be used.

EXAMPLE THREE

From Lincolnshire Shared Services Partnership Project: Draft Proposal for Commuted Sums for Street Lighting Maintenance, Nov 2007

LSSP – STREET LIGHTING – TOTAL COMMUTED SUM CALCULATION

Commuted sum period	150	years
Life of column	40	years
Bulk lamping cycle	3	years
Lantern change cycle	15	years
Test & Inspect cycle	6	years
Night patrol cycles	26	years
Cost of replacement	£900	per column
Cost of lamp change	£15	per column
Cost of lantern change	£110	per column
Cost of test & inspect	£10	per column
Cost of night patrol	£36	per 1000 columns

Number of columns of which	4	columns	Years	at NPV	Years	at NPV	Years	at NPV	Years	at NPV	Years	at NPV	Years	at NPV	SUM A
		100 % to be replaced in	5	£3,031and	45	£952and	85	£441and	125	£164and	999	£0 and	999	£0	£4,589
		0 % to be replaced in	10	£0 and	50	0 % and	90	£0 and	130	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	15	£0 and	55	0 % and	95	£0 and	135	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	20	£0 and	60	0 % and	100	£0 and	140	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	25	£0 and	65	0 % and	105	£0 and	145	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	30	£0 and	70	0 % and	110	£0 and	150	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	35	£0 and	75	0 % and	115	£0 and	999	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	40	£0 and	80	0 % and	120	£0 and	999	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	45	£0 and	85	0 % and	125	£0 and	999	£0 and	999	£0 and	999	£0	£0
		0 % to be replaced in	50	£0 and	90	0 % and	130	£0 and	999	£0 and	999	£0 and	999	£0	£0
		0 % not being replaced													
													TOTAL SUM A		**£4,589**

Note: The replacement of all the columns at Year 5 reflects the variable condition of those taken

SUM B		**SUM A**	**£4,589**	NB: Spreadsheet for Sum B elements not shown
£692	For lamp change	**SUM B**	**£2,066**	
£1,015	For lantern change		**£6,655**	**TOTAL COMMUTED SUM**
£231	For test & inspect			
£129	For night patrol			
£2,066	**TOTAL SUM B**			NB: These calculations assume a robust, fully populated inventory exists

Comment

A good example of setting out a PV calculation for periodic replacement of assets.

As already stated, it is preferred to use a discount rate of 2.2% that takes account of inflation. With future values increasing with inflation a discount rate of 3.5% risks leaving the LHA out of pocket. It is considered that there would need to be a very strong justification for levying a commuted sum to cover projected expenditure in Years 85 and 125. 87% of Sum A is accounted for by replacement at Years 5 and 45.

EXAMPLE FOUR

From Leicestershire County Council

Commuted Sum Calculation **Tegula blockwork to carriageway**

Take up and relay blocks @£31.10/m2. Add cost of new blocks (10%) @ £21.25/m2 = £2.13/m2. Total £33.23/m2

15% of total treated in 10 years = £4.98

Estimated periodic maint cost (£ at present values)

Interval between periodic maintenance (years)	Mp	4.98
Discount rate (%)	T	10.00
Time limit for commutation (years)	D	2.200
	Tmax	60.00

Present value of a future maintenance event = Mp / (1 + D/100)nT (where n is the number of the maintenance event - 1st, 2nd, 3rd etc., and nT does not exceed Tmax.)

Event no.	**n**	**nT**	**Present value**
Event no.	1	10	4.01
Event no.	2	20	3.22
Event no.	3	30	2.59
Event no.	4	40	2.09
Event no.	5	50	1.68
Event no.	6	60	1.35
Event no.	7	n/a	0.00
Event no.	8	n/a	0.00
Event no.	9	n/a	0.00
Event no.	10	n/a	0.00
Event no.	11	n/a	0.00
Event no.	12	n/a	0.00
Event no.	13	n/a	0.00
Event no.	14	n/a	0.00
Event no.	15	n/a	0.00
Event no.	16	n/a	0.00
Event no.	17	n/a	0.00
Event no.	18	n/a	0.00
Event no.	19	n/a	0.00
	20	n/a	0.00
	Commuted sum		**14.93**
	(total present value of future maintenance)		
	Total Commuted Sum (Including 10% design and supervision)		16.43

Note that the commuted sum for maintaining the same area of Tegula Blockwork for 30 years is £10.80, indicating the additional costs from increasing the CS period to 60 years.

Comment

A good example of setting out a PV calculation for periodic maintenance. It uses the preferred discount rate of 2.2% and recommended default period of 60 years.

On the face of it, this example shows the full costs for maintaining Tegula blocks rather than the additional cost over a standard finish. This example illustrates the importance of restricting commuted sums, to additional costs only, when covering 60 years main-tenance. In this example, the increase in the commuted sum from that for a 30 year period at £9.81, to that for 60 years, £14.93, is £5.12, or 52%.

TYPICAL REFERENCES TO COMMUTED SUMS IN S278 & S38 AGREEMENT CLAUSES

(Extracts from Leicestershire County Council documentation)

S278 AGREEMENT CLAUSES

Security

Upon the execution of this agreement the Developer shall secure the costs of the Highway Works by deposit with the highway authority of a sum equivalent to the Director's reasonable estimate of the cost of the Highway Works (including any Statutory Undertakers works) together with any commuted sum payable to the highway authority in accordance with Clause 26 in the sum of £ , .00

or

Prior to the commencement of the Highway Works the Developer shall secure the cost thereof by the deposit with the highway authority of a Bond in the manner and form incorporated in the Second Schedule hereto in a sum equivalent to the Director's reasonable estimate of the cost of the Highway Works (including any Statutory Undertakers works) together with any commuted sum payable to the highway authority in accordance with Clause 26

Commuted Sum

Immediately prior to the issue of the Final Certificate of Completion the Developer shall pay to the County Council a commuted sum towards the cost of future maintenance of the said roads in the sum of THOUSAND HUNDRED AND POUNDS (£) adjusted in accordance with the Schedule to the Bond hereto to arrive at the Final Sum Payable

or

If so required the Developer shall pay to the highway authority prior to the issue of the Final Certificate of Completion such reasonable commuted sum as may be agreed between the parties towards the cost of future maintenance of items such as special street lighting, trees and their maintenance and special works in respect of preservation and any sustainable drainage

Use of Sums Paid

The County Council shall use such sums as are payable in accordance with the terms of this agreement together with any interest which may accrue only for the purposes set out above

SECOND SCHEDULE

BY THIS BOND WE (Name of Developer) whose registered office is situate at (Insert Registered office of Developer) (hereinafter called "the Developer") and (Insert name of Surety) whose registered office is situate at (insert address of Surety) (hereinafter called "the Surety") are held and firmly bound unto LEICESTERSHIRE COUNTY COUNCIL (hereinafter called "the Authority") in the sum of for the payment of which sum the Developer and the Surety bind themselves their successors and assigns jointly and severally by these presents WHEREAS the Developer has entered into an Agreement with the Authority dated Two Thousand and (hereinafter called "the S.278 Agreement") pursuant to Section 278 of the Highways Act 1980 whereby the Developer has covenanted to carry out the Highway works referred to in the S.278 Agreement (hereinafter called "the S.278 Covenants")

NOW THE CONDITION of the above written bond is such that if the Developer shall well and truly perform and fulfil the S.278 covenants according to the true purpose intent and meaning of the S.278 Agreement or if on failure by the Developer so to do the Surety shall pay to the Authority the said sum of then the above written Bond will be null and void but otherwise it shall be and remain in full force and the giving by the Authority of any extension of time for the performing of the S.278 Covenants or any covenant contained in the S.278 Agreement and on behalf of the Developer to be performed or fulfilled or any forbearance or forgiveness on the part of the Authority to the Developer in respect of any matter referred to in or concerning the S.278 Agreement shall not in any way release the Surety from the Surety's liability under the above written Bond PROVIDED THAT upon the issue of the Provisional Certificate under Clause 2 of the S.278 Agreement the liability of the Developer and the Surety under this Bond shall be reduced to a sum equivalent to ten per cent of the cost of the Highway Works together with the value of the commuted sum as calculated in accordance with the Schedule hereto upon the issue of the Provisional Certificate or a minimum sum of one thousand pounds (£1,000) whichever is the greater and upon the issue of the Final Certificate under the S.278 Agreement the liability of the Developer and the Surety under this Bond shall absolutely cease

SCHEDULE

1.In this Schedule:-

"Index" means the Resource Cost Index of Road Construction (ROCOS) published by the Department for Business Enterprise and Regulatory Reform as part of the Quarterly Building and Cost Indices for Public Sector Construction Works or such other index as may from time to time be published in substitution thereof

"Base Index Date" means the date of this Agreement

"Base Index Figure" means the figure last published in respect of the Index prior to the Base Index date at the time of the Base Index Date

"Final Index Figure" means the figure including any provisional figure last published or otherwise agreed or determined in respect of the Index prior to the respective date upon which the Commuted Sum is payable

If time periods to any maintenance operation covered by the commuted sum are different from those used in the calculation (e.g. if the asset has been in service for a year or more), it will be necessary to recalculate the sum using the revised periods and updated costs of maintenance operations. If the time periods are unchanged from those in the calculation, the commuted sum shall be increased by such sum if any in pounds sterling as shall be equal to the sum calculated according to the following formula:-

Increased Sum = A x C
B

Where: "A" equals the Commuted Sum
"B" equals the Base Index Figure
"C" equals the Final Index Figure

If after the Base Index Date there should be any change in the Base Index Figure by reference to which changes in the Index are calculated, the figure taken to be shown in the Index after such change shall be the figure which would have been shown in the Index if the said Base Index Figure had been retained and the appropriate reconciliation shall be made but if for any reason the Index shall be otherwise altered or shall be abolished or replaced, there shall be substituted for the purposes of this Schedule such index as may from time to time be published by or under the authority of any Ministry or Department of Her Majesty's Government and if no such index is published, the parties thereto shall endeavour to agree such other index as shall most closely reflect changes in the cost of Public Works (Roads)

If any substitution for the said Index or any index previously substituted thereof shall occur pursuant to the provisions of Clause 3 of this Schedule, the parties hereto shall endeavour to agree the appropriate reconciliation between the Index substituted on the one hand and the ROCOS Index or any index previously substituted thereof on the other hand.

S38 AGREEMENT CLAUSES

Surety

We must be protected against the risk of unforeseen expenditure if you leave the road works unfinished for any reason. So we will calculate the cost of the road works, including any highway structures, highway drainage and commuted sums (where applicable) and you must provide us with an appropriate surety equal to the cost that we calculate. This may be in the form of:

- a bond with a recognised financial institution; or
- the equivalent sum of monies lodged with us.

Issuing a provisional certificate

When we issue a provisional certificate, the amount of bond can be reduced, usually to 10% of the original amount. The exception to this is where you are paying us a commuted sum in which case the bond cannot be reduced to a value less than the 'provisional' commuted sums that we have calculated.

Issuing a final certificate

We will issue a final certificate of completion when the following actions have taken place.

- You must contact us at the end of the maintenance period to arrange a further joint inspection of the road works (including any landscape planting, trees, grassed areas and so on). We will issue you with a list of any outstanding remedial works we require you to do, which you must then complete to our satisfaction.
- You must have maintained the road works to our satisfaction during the maintenance period.
- You must have maintained any existing or new landscape planting, trees, shrubs, grassed areas and so on to our satisfaction during the road works' maintenance period.
- You must provide us with a copy of the provisional certificate of adoption for the drainage and sewers, as issued by the relevant water company.
- You must pay us any commuted sums that are required.
- You must pay us any other charges that are required, for example to cover the bulk clean and lamp change for illuminated signs (see Part 4, paragraph 4.114) or to cover similar for street lighting (see Part 4, paragraph 4.128).
- Where the new road is subject to a safety audit, stage 4 must have been completed to our satisfaction. We will decide whether we can issue the final certificate once the stage 4 12-month report has been completed. (Please see appendix D for further information on safety audits).
- You must provide us with 'as built' drawings, preferably in an electronic form on CD, for example Autocad file.
- You must provide us with the health and safety file, on CD, produced in line with the Construction (Design and Management) Regulations 1994 (CDM).

After all of the above has been done to our satisfaction, we will:

- issue a final certificate of completion;
- inform you that the bond can be cancelled;
- post notices of adoption on-street; and
- adopt all areas dedicated within the Section 38 agreement as highway to be maintained at public expense.

Payments to us

We make a charge for the work involved in:

- preparing and managing the Section 38 agreement;
- checking the design of the road works, any associated structures and any highway drainage; and
- inspecting the works on site.

The charge for administration, design checking and site inspection is normally a fixed percentage, and currently this is normally 6%, of the estimated cost of the total road works, as calculated by us, excluding any associated structures (see below) and SUDS and 'non-standard' drainage systems. There is a minimum charge of £1000 for each agreement.

We will make additional charges for design checking and site inspection of highway structures based on 'actual' costs. (Please see Part 4, Section MC15 for further details on structures.) We will also charge additional fees, based on 'actual' costs, for SUDS and 'non-standard' drainage systems. (Please see Part 4, Section MC8 for further details on drainage).

We will also charge a separate fee of 10% of any commuted sum towards the costs of our additional administration and inspection work.

Commuted sums

For some time we have normally required commuted sums to cover maintenance of such items as highway structures, noise fencing, traffic signals and 'heritage' street lighting where they are to be adopted as part of a publicly maintained highway,. We have now broadened this requirement to give us greater flexibility to adopt 'innovative' layouts and 'non-usual' materials without placing undue burdens either on our budgets or on Council Tax payers.

So, where in principle we are prepared to adopt them, you will normally also have to pay commuted sums on:

- additional areas exceeding usual highway design standards and which are not required for the safe functioning of the highway;
- materials outside our usual Specification;
- non-usual or additional street furniture;
- landscaping within the proposed highway, including trees; and
- sustainable drainage systems (SUDS), for example, flow-attenuation devices, swales and storage areas).

Note: Where you are proposing SUDS, you must hold discussions with all relevant parties at an early stage (and certainly before you submit your planning application) to agree ownership and responsibility for the facility.

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GLOSSARY OF ABBREVIATIONS

CAA	Comprehensive Area Assessment
CIL	Community Infrastructure Levy
CIRIA	Construction Industry Research and Information Association
CS	Commuted Sum
CSS	County Surveyors Society
DC	District Council
DCLG	Department for Communities and Local Government
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
HA	Highways Agency
HA 1980	Highways Act 1980
HAMP	Highway Asset Management Plan
HBF	Home Builders Federation
LHA	Local Highway Authority
LPA	Local Planning Authority
MSIG	Midlands Service Improvement Group
NFB	National Federation of Builders
NHBC	National House-Building Council
NPV	Net Present Value
PFI	Private Finance Initiative
PDG	Planning Delivery Grant
PPG	Planning Policy Guidance
PV	Present Value
RNF	Relative Needs Formula
RSG	Revenue Support Grant
RTPI	Royal Town Planning Institute
SUDS	Sustainable Drainage Systems
TAG	Technical Advisers Group
TAMP	Transport Asset Management Plan
TAN	Technical Advice Note (Wales)