

1.0 Introduction

1.1 Background to the joint bid

- 1.1.1 Gloucestershire County Council (GCC), Wiltshire County Council (WCC) and Swindon Borough Council (SBC) have come together to put forward a joint bid for Element 2 transport asset management funding based around the use of video technology. As well as being geographical neighbours, our three authorities were linked by the dramatic flooding events of July 2007. The flooding caused significant damage to our networks and resulted in major drainage improvement programmes. The resulting Pitt Report included the recommendation that authorities collect and map drainage assets. Making use of video technology, this work has begun and is not restricted to the collection of drainage asset information but is also applied to the wider transport infrastructure. The use of video technology has also prompted a range of innovative uses and led to a wide variety of direct and indirect benefits.
- 1.1.2 But what's so innovative about using video technology? Within this bid we will demonstrate how video can be used to inform engineering decisions from the desktop, thus reducing an authority's carbon footprint and resulting in greater efficiencies, as well as better health and safety for staff through greater awareness of site conditions. In addition, video of our underground drainage assets are an invaluable resource in being able to understand the asset, how it might respond in an emergency situation and where our resources are best focused.
- 1.1.3 All three councils share the asset management philosophy of making data driven decisions and believe that the basis for making such decisions should be accurate, reliable data on key infrastructure elements – carriageways, footways, verges, structures, street lighting and drainage. One of the most important attributes to be collected is the condition of the asset – armed with this information decisions can be taken about best application of resources, how much resource is needed and the rate of deterioration of the assets.
- 1.1.4 Our strategic aims are focused around partnership – sharing information amongst us and with others, sharing management tools and techniques for joint procurement, and working together to achieve standardisation in the region. All three authorities have conducted a gap analysis (as part of the development of individual Asset Management Plans) in order to form the foundation for applying an asset management approach to the highway service. As highway authorities we are focused on the delivery of network availability and safety, and are well informed about what assets affect our service delivery the most. Monitoring condition and performance of those assets over time helps us to assess their suitability and plan their life cycles. The benefits of this approach include improved working relationships, better understanding of how to prioritise resources, establishment of appropriate interventions, delivery of better value for money and the ability to close the knowledge gap about the highway asset. Funding through this bid will allow us to accelerate our asset data collection, complete Transport Asset Management Plans (TAMPs) and achieve faster delivery of these benefits.

1.2 Asset Management Plan - Gloucestershire

- 1.2.1 Gloucestershire County Council produced their first TAMP in 2005. The gap analysis identified some areas where knowledge of the asset inventory needed to be improved and the use of video survey was identified as the most cost effective way of tackling the information gap. Gloucestershire has made wide use of video survey - whilst the original intention was to provide a mechanism for collecting asset data from the desktop, in practice it has prompted a range of innovative uses, which will be outlined in detail in section 3.3 below.
- 1.2.2 In the aftermath of the July 2007 flooding events the video survey was used extensively in helping to pull together the successful £16.5million bid for funding to restore the damaged network. In Gloucestershire, a positive outcome is the significant volume of valuable information on the extent and condition of the drainage system, including CCTV surveys, being collected for the first time.
- 1.2.3 Gloucestershire County Council is committed to the asset management approach and in 2006 set up the Asset Management team which comprises over 70 staff. The structural maintenance capital programme is now primarily driven by condition data that is collected at the centre, rather than dealt with on an area basis. There is a need to collect asset data to support this approach and this is the philosophy behind the Asset Management team.



1.3 Asset Management Plan - Wiltshire

1.3.1 Wiltshire County Council started work on its TAMP in 2005. Its consulting engineers Mouchel and their specialist sub-consultant Chris Britton Consultancy assisted the Council. A multi-disciplinary working party carried out a review of existing inventory and condition information held about its transport infrastructure, including the county's roads, bridges, street lighting, traffic signals, real time information systems and other transport related assets. The initial data collection was followed by a gap analysis of asset information and management procedures, which informed the preparation of an Action Plan to address gaps in the information, and resulted in an asset management approach being adopted for prioritising maintenance works.



1.3.2 Wiltshire also has a track record of using video technology to record their drainage network. The Council has pioneered a concept that includes the collection of drainage asset information through the development of purpose built software. This unique system allows drainage information to be stored, viewed and is driving key decisions about where funding should be concentrated for future work programmes, in both the short and longer term.

1.3.3 Wiltshire was also affected by the July 2007 flooding, particularly in the north of the County, and additional funding was made available from Council resources to address problems in flooding hotspots. The collection and use of information on the condition of drainage infrastructure has assisted in prioritising repair and maintenance works, and making best use of resources.

1.4 Asset Management Plan - Swindon

1.4.1 Swindon Borough Council is a new Unitary Authority with a primarily urban network that is expanding rapidly in line with local commercial and residential growth. In 2007 it developed its first TAMP and is committed to an asset management approach that prioritises effective and timely maintenance for service delivery. A gap analysis performed as part of the TAMP development identified the need to improve inventory information available to individual asset managers as well as to staff manning its dedicated Customer Service Centre. This facility enables the Council to share information between front line services and their delivery support.



1.4.2 Swindon is prioritising improvements to its drainage network following the flooding of July 2007. The primary aim is to establish a boundary to the extent of potential damage and to reduce flood risk through a series of measures that include on the ground improvements by the Council. The award of Element 2 funding to the joint bid will enable the Council to benefit from the experience and expertise of its two senior partners in asset information collection and management, including drainage data collection. It will also assist the Council to establish a more comprehensive programme of drainage improvement works through its partnership arrangement with Thames Water and the Environment Agency.

2.0 Using Video – Drainage Assets in Wiltshire

2.1 Strategic aims

2.1.1 The gap analysis carried out in connection with the development of the Wiltshire TAMP clearly highlighted the lack of hard knowledge about the highway drainage network in the County. It was recognised that to effectively manage the asset, confirmation of its existence and location, together with knowledge of its condition was paramount.

2.1.2 Inefficient highway drainage leads to premature pavement deterioration and flooding, which in addition to being a serious safety issue (especially in winter) and the human impact of flooded homes, inevitably results in considerably increasing financial burdens on already limited highway maintenance budgets. With inadequate or non-existent records to go by, some authorities find it a challenge to schedule effective cleaning and maintenance regimes, let alone respond efficiently and effectively to emergency situations.

2.1.3 Wiltshire County Council and its consultant Mouchel have spent the last seven



years creating, establishing, and developing a system to manage the highway drainage asset. As a result software that can accurately record both surface and underground highway drainage assets has been developed. At the core of the concept is the data collection and video survey of the drainage system carried out by the operators, which provides invaluable and incontrovertible evidence of the condition of the drainage asset to inform decision-making.

2.2 Details

- 2.2.1 The HDAM (Highways Drainage Asset Management) concept provides a means to capture and maintain drainage records, which through interrogation and analysis is enabling the Council to more effectively target its highway drainage maintenance budget and capital expenditure. Previously, Wiltshire's drainage records were a combination of paper records and 'local' knowledge, with the local knowledge base rapidly disappearing as staff retired. The paper records were becoming increasingly unreliable as a result of the multitude of changes affecting the highway network. Wiltshire has developed and implemented a simple GIS based system to improve the reliability, ease of management and accessibility of its drainage record base.
- 2.2.2 The HDAM concept is for a complete solution encompassing the location, plotting, cleaning, CCTV survey and data collection of the highway drainage, followed by the uploading and retention of the data within the HDAM software, which in turn provides an effective means of data retrieval. The data provides crucial information on the condition of the county's highway drainage network to inform maintenance decisions.
- 2.2.3 There are two elements to the software. There is the HDAM itself, which is the office-based 'master' element holding all the entered data, and vanApp, which is a field data collection module loaded onto a site based laptop. An export/import tool is used to transfer data electronically between the two elements. HDAM is a GIS based desktop application that allows users to create, edit and view highway related drainage assets and associated data. It uses Ordnance Survey mapping, and represents these assets as a link-node network. Data retrieval is via screen selection and drill down capability. Recent developments of the system have expanded the capabilities of vanApp into a multi-unit field application, and HDAM provides for a multi-workstation system with one edit and multiple read-only facilities.

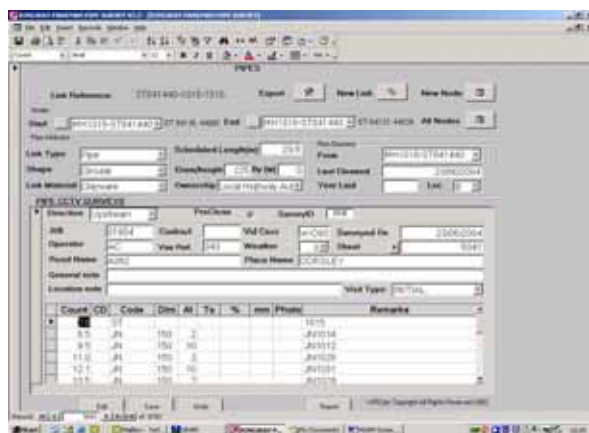


Figure 2 – vanApp system

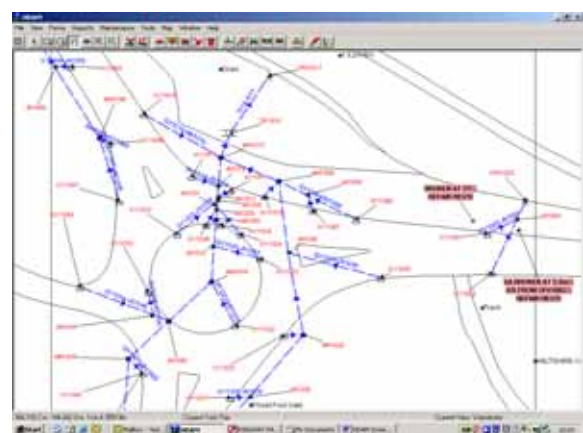


Figure 3 – HDAM GIS mapping system

- 2.2.4 In addition to the CCTV surveys it is also possible to register images from the survey against an asset and view them from within the application. This allows the speedy viewing of particular locations, e.g. where there is damage or a feature of interest. Incidents can be assigned to network assets, which can include full details of the type of incident (e.g. repair works carried out or scheduled) together with any contact details. A maintenance schedule and record can be associated with individual nodes and links, allowing a maintenance history for individual assets to be compiled and viewed, and future maintenance requirements scheduled.

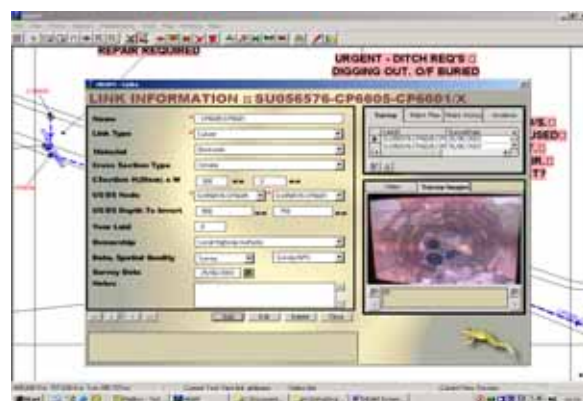


Figure 4 – screen shot showing HDAM software

- 2.2.5 In Wiltshire, the system is being used to carry out highways drainage surveys prior to all major maintenance schemes to establish the true extent, location and condition of the drainage network, as well

as to identify the areas for improvement or repair. These are then included as part of the scheme implementation. The use of HDAM is also common practice at other County locations particularly where there are known flooding problems, so that asset data is collected whilst resolving issues. It is also used at locations of proposed new highways, in response to emergency situations, and where housing or industrial development is planned.

- 2.2.6 In Wiltshire the HDAM concept includes for a data collection team, comprising a powerful combined jetting and suction machine with supporting water bowser, a CCTV camera van equipped with both self propelled and push rod cameras, control and recording equipment, and a laptop with vanApp installed, together with a traffic management vehicle. All the site equipment and specialist staff are provided by the Council's term maintenance contractor. The site team includes a camera operator experienced in the use of VanApp and capable of plotting the drainage network onto provided plans, a jetter operator skilled in the 'uncovering and discovering' of lost and buried systems and their cleaning, together with trained staff to establish the appropriate traffic management.

2.3 Applications, innovation and benefits

- 2.3.1 The surveys have not only allowed the locations of highway drainage to be plotted, they have also provided information on the structural integrity of the asset and the extent of damage either from life-expired links or from third party damage, particularly by public utilities. A gas service pipe laid through an existing concrete carrier pipe is a typical example. There are many incidents of damage caused by improperly installed utilities. Damage can also occur when safety fences or posts are erected, and drainage information is not available.
- 2.3.2 The surveys have enabled the establishment of a procedure for identifying, recording, repairing and cost recovery of third party damage, particularly from public utilities. The data and the subsequent evidence produced from the project can also be used by Wiltshire to refute claims or compensation costs.



Example of an HDPE gas service pipe laid through a concrete carrier pipe



Example of how the video evidence can also show that the drainage system is in good condition

- 2.3.3 It is also important to point out the benefits that have resulted from working with other partners. One outcome has been better co-operation with the utilities companies who are able to access reliable information about the highway drainage asset before starting work.
- 2.3.4 One of the most valuable aspects of HDAM is that, because it is not possible to carry out CCTV surveys unless the drainage system is clean, routine maintenance is carried out as part of the surveying process.

2.4 Value for money

- 2.4.1 The CCTV footage and full records produced by the HDAM system have enabled the council to determine intervention levels for repair or replacement, and to recover the repair and additional costs from the relevant perpetrators when there has been damage to the network.
- 2.4.2 HDAM has enabled repairs expenditure to be targeted at precise locations and avoided the wholesale replacement of drainage. The availability of good condition information allows informed decision making, which leads to value for money and efficiency. Repairs can be prioritised based on the information obtained. In some cases immediate repair may be required if there are serious flooding or safety implications. In other cases the work may be less urgent and can be included in a planned programme of

repairs, or the repairs can be carried out in conjunction with other works at the same location, for example when surfacing or local safety schemes are carried out. The more effective programming of drainage repair work not only reduces costs, it also reduces disruption to highway users.

2.5 Handling of change

- 2.5.1 It is important that the information held on the drainage system is made available as widely as possible. Every month, a copy of all the data held on HDAM is made available to the area offices through the MapExplorer system. This is increasingly being used for responses to utilities' status enquiries, which should result in less damage to the highway drainage system by Utilities, and provides a good source of information for emergency situations. The information on the drainage system is kept up to date by surveys of recently constructed or adopted roads, or by the manual entry of adoption records.
- 2.5.2 Where the team has carried out surveys there has often been a startling improvement in the performance of the highway drainage network. The cleaning of the system before each survey often produces large quantities of arisings for disposal giving a dramatic illustration of the previous reduction in capacity and performance of the system.
- 2.5.3 The end result will be a recorded drainage system which functions as intended, reducing flood incidents, and improving the safety of those using the highway. It also enables a realistic assessment to be made of the capacity of the existing system, and provides information to plan longer-term improvements. The ability to view hard evidence of the condition of the asset without the expense of a site visit enables a speedier and more accurate response to be made to requests for information, and to respond to problems on the network.

2.6 Ongoing work to sustain the benefits

- 2.6.1 Wiltshire has already surveyed some 300km of pipe and the work is set to continue with the aim of producing a full underground asset inventory for the county's highway drainage infrastructure. This will give the Council the information to meet its commitments in relation to the Traffic Management Act, Water Framework Directive, Treasury requirements for resource accounting and budgeting and go some way to meeting the proposals set out in the recent Pitt Review.
- 2.6.2 Wiltshire County Council is keen that the benefits of HDAM are made available to a wider audience, and in conjunction with Mouchel and the WRc Group, is now making the software available to other local authorities.
- 2.6.3 Another important part of sustaining the benefits is in sharing information gained and lessons learned with its bid partners, Gloucestershire and Swindon, as well as other authorities. A review of existing applications and drainage management and associated software has established that Wiltshire's HDAM software would meet both Gloucestershire and Swindon's requirements.

3.0 Using Video – Highway Assets in Gloucestershire

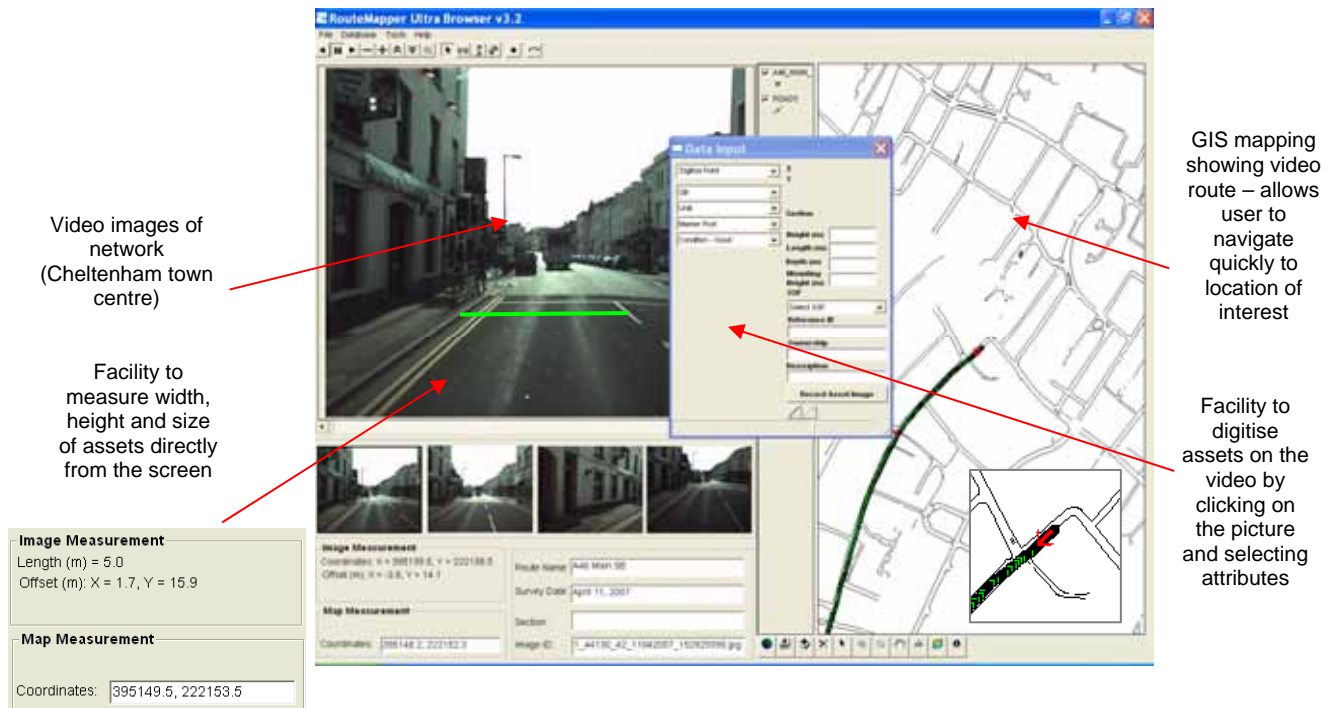
3.1 Strategic Aims

- 3.1.1 Gloucestershire had identified a need to update its asset inventories so as to meet the TAMP objectives. In order to achieve this, Gloucestershire identified digital video surveying as a low cost alternative to manual asset surveys. Video surveys offer several advantages over traditional walked surveys – capture of information about a wide range of assets in a single pass with significant time savings and retention of accessible historical records on the condition of the highway asset at specific points in time.
- 3.1.2 Implementation of IBI Group's RouteMapper system initially focused on the A and B roads within the county. In addition, C class roads in Gloucester City and Cheltenham Borough were captured as these urban routes contain a significant number of highway assets. In total, 2200km (around 40%) of the road network was surveyed in 2007/08 at a cost of approximately £100,000.

3.2 Details

3.2.1 Digital video surveying transfers a great deal of the inspection and inventory tasks from the field to the office, with additional benefits in terms of efficiency, quality control and health and safety. It also provides a visual record of the network that can be used in a range of other operational and engineering functions. In its simplest form, this type of survey consists of several digital cameras, GPS and other positioning technologies, all linked to a recording device. The cameras are calibrated, enabling objects to be measured in-frame in 2 and 3 dimensions.

Figure 1



3.2.2 Figure 1 above shows some of the key features of the system. In order to digitise an asset, the user simply clicks on the video picture and chooses the attributes of the asset from drop down menus. The software is then able to translate this to x, y and z co-ordinates. In a few simple steps you are able to record the location of the asset, its height, width or overall size, and whatever attributes you need to collect such as type, condition etc. The image is saved as part of the record so it is always easy to go back to obtain more information, e.g. to recheck details such as the destination displayed on a direction sign.

3.2.3 The asset information is stored within the software's internal database whilst it's being collected. It is then possible to extract this data for input into asset management systems or integrated highway management systems or to simply output it as an Excel spreadsheet for further manipulation. In Gloucestershire the data is being extracted and uploaded into the EXOR asset management system where it replaces older or outdated information for that particular asset.

3.3 Applications, innovation and benefits

3.3.1 Whilst updating existing asset inventories and inputting missing information is an important process in itself, it is some of the more innovative spin-offs that have proven to be the most interesting and valuable.

3.3.2 Gloucestershire has been using the video survey to support a number of specific projects including a speed limit review (DfT Circular 1/2006). Speed limit sign data captured from the video is used to create GIS layers and develop a 'speed flow' network for the county. This forms the basis for reviewing speed limits on A and B roads using speed, flow and accident data.

3.3.3 Another application has been the use of the video survey to capture lorry routing signs within the Cotswold Area of Outstanding Natural Beauty (AONB). One of Gloucestershire's priorities is to reduce inappropriate use of the roads within the Cotswold AONB by heavy goods vehicles. The video was used to identify what lorry routing signs were in place, in order to check that routing was clear and correct, as well as enabling some rationalisation of signs to be carried out to de-clutter the AONB countryside.

- 3.3.4 The video also provided Gloucestershire with the opportunity to record the condition of the network in Gloucester City and Cheltenham Borough prior to the demobilisation of the agency agreements with the two authorities, enabling the Council to clearly identify the number and condition of the assets prior to re-assuming responsibility for it. This has proved extremely useful in identifying and quantifying the maintenance requirements.
- 3.3.5 The road condition team has used the video to assist with initial SCRIM site investigations (Sideway-force Coefficient Routine Investigation Machine, measures the wet skidding resistance of the road surface) and in developing a programme of skidding resistance, resurfacing or retexturing schemes. SCRIM data is loaded into the software, where the data is ranked by its SCRIM coefficient value and displayed as three different colours within the map window. The engineers can either manually browse through the data or search for deficient values. The imagery from the video allows the engineers to validate the SCRIM data, reducing site visits. The video is also used to help set investigatory levels for SCRIM calculations – allowing the engineers to assess from a driver’s viewpoint the visibility of junctions, vertical and horizontal alignment and other factors.
- 3.3.6 The captured data has been very useful in providing evidence of the condition of the network prior to the July 2007 flooding which devastated the county’s road network. An Emergency Capital Highways Maintenance claim was submitted to the Department for Transport (DfT) that provided detailed evidence of the flood damage as well as the pre-existing condition. This resulted in Gloucestershire receiving £16.5 million of grant funding to repair flood-damage.
- 3.3.7 In a more unusual application, the video has provided data on the type, number and legend of signs along the A40 and A419 that were hit by thieves in 2007, determining what signs need to be replaced, and also allowing a process of rationalisation and de-cluttering to be undertaken.
- 3.3.8 Last, but by no means least, is the use of the video survey by engineers carrying out desktop studies and designs. Having the resource available to view the network from a driver’s eye perspective means that, whilst site visits will always be necessary, a considerable amount of preparatory or checking work can be done from the office thus reducing unnecessary mileage and travelling time. This has huge benefits in terms of efficiency and reducing the authority’s carbon footprint. It also enables the engineers to gain information about a site prior to visiting, which has a positive health and safety effect through improved awareness of site conditions (an approach recommended in the CDM Regulations 2007). The software also enables the engineers to take measurements of features on the video image (with a dimensional accuracy of up to 2cm), which is of great assistance when considering feasibility and preliminary designs.
- 3.3.9 Another key benefit has been the public-private partnership between Gloucestershire and IBI Group which has resulted in a close working relationship, collaboration on disseminating best practice through user groups and the media, as well as sharing knowledge about the wider applications of the video software.

3.4 Value for money

- 3.4.1 Gloucestershire considers the video survey of A and B roads to have been extremely good value for money – the fact that there is a wide range of applications over and above the core data collection means that the video has become a useful tool providing benefits to other parts of the authority, outside the asset management team, and as such has proved excellent value for money.
- 3.4.2 In terms of real savings, purely for collecting asset information, it is estimated that having the video survey will have saved approximately £120,000 of resources compared with carrying out the asset data collection by traditional methods.

3.5 Handling of change

- 3.5.1 Applying an asset management approach by collecting and using information in this way has meant dramatic changes to the way in which our teams work. As described in the introduction, Gloucestershire has set up an Asset Management team, including a dedicated Data Manager with 39 staff whose remit is to collect and provide data to enable the rest of the authority to make decisions based on evidence. Previously the county used a more traditional approach based on geographical areas. The centralisation of this function has resulted in cultural changes to the way in which the maintenance operations are carried out. As a result the level of control that is held by the area teams has radically changed and this has an impact on their relationship with the public and local members. However, the fact that there is clear evidence of progress has helped to support the change – area teams are now able to deal with enquiries knowing that the decisions made are based on sound evidence and need.

- 3.5.2 In addition, two asset inspectors have been recruited. Their primary role is to collect and verify asset information on the network, particularly in relation to road condition and new developments. This is a vitally important part of the process and one where Gloucestershire has learned how important it is to have processes in place for keeping the newly collected asset data up to date, accurate and relevant.

3.6 Ongoing work to sustain the benefits

- 3.6.1 In Gloucestershire there is ongoing work to collect asset data about the highway network. In the current year the focus is on updating the inventory of signs, variable message signs, bollards and illuminated bollards and this will have been completed for A and B roads by the end of the year.
- 3.6.2 Work is also ongoing to roll out the availability of the system to more users. Training has been provided for users in the Traffic Signals team and the engineers in the Schemes Delivery team, as well as more users within the Asset Management team itself.
- 3.6.3 Gloucestershire intends to extend the video survey work to cover all the C class and unclassified roads within the county to complete the asset data update and continue to realise the benefits of having video coverage of the entire county road network. One of the lessons learned through the work already carried out is the advantage of having the data capture process carried out as quickly as possible after the video survey is completed – this ensures that the information captured is as accurate as possible.

4.0 Sharing Best Practice

4.1 Within the partnership

- 4.1.1 There are a number of ways in which the partners to this bid have shared best practice or intend to benefit from each others knowledge and experience of using video technology.
- 4.1.2 Gloucestershire County Council is prioritising improvements to the drainage network following the flooding events of July 2007, which caused widespread disruption and damage. The Council is now implementing a massive £6 million drainage improvement programme and one of the by-products of this is that there is a significant volume of valuable CCTV survey information being collected for the first time. Gloucestershire are keen to work with Wiltshire on the best way of storing such information, and what lessons can be learned from Wiltshire's experience so that this valuable information can form the basis of future investment and maintenance decisions.
- 4.1.3 Swindon has conducted a comprehensive flood review with the Environment Agency. The primary aim is to establish a boundary to the extent of potential damage and to reduce flood risk through a series of measures that include on the ground improvements by the Council. While the report itself represents the tabling of responses to an exceptional event, it has encouraged Swindon to review its practices in relation to the management of runoff. It is acknowledged that Swindon's drainage inventory and condition information requires improvement. Furthermore, developers do not submit their plans for their sites, which hampers inventory updates and planning future condition inspections. From a gap analysis carried out for management of its drainage assets the Council has concluded that it should carry out a programme of detailed CCTV surveys to establish the layout and condition of its drainage assets. However, with current levels of funding the Council will not achieve this in the short term. Swindon can see significant potential in meeting these requirements and going towards those of the Pitt Review in utilising the knowledge of its partners in this area.
- 4.1.4 In terms of more general highway infrastructure data all three authorities have identified gaps in their asset knowledge. Whilst Wiltshire has conducted some initial trials of video surveying, the predominant data collection method is via traditional manual surveys. Similarly Swindon has embarked on the data capture of a prescribed set of elements over the whole of its network beginning late 2007. The only cost effective and practical technique available has been walking surveys with recording on hand-held computers as survey vehicles equipped with specialist equipment would not be able to traverse many streets in the network. As a partnership, Gloucestershire, Wiltshire and Swindon are interested in jointly procuring video survey to enable an accelerated programme of data collection and earlier realisation of the benefits that having good highway asset data will bring. With Gloucestershire's experience of video surveying the partners can benefit from the lessons already learned in this area, as well as the spin off applications and innovations that having video survey of the network can bring.

- 4.1.5 Whilst Swindon has not yet used video technology to collect asset data, its asset inventory (collected by more traditional means) is being exploited in a number of innovative ways. They are working towards providing access to a snapshot copy of the database by the Customer Service Centre. This snapshot version will contain details of inventory, condition assessment, records of major defects, and summaries of planned remedial works. It enables recording of reported defects or issues, which can be associated immediately with individual inventory elements and the supporting data associated with them - condition, planned works etc. Staff can then immediately provide information on remedial work in hand or issue alerts to relevant technical managers for assessment and scheduling of work. Condition indicators are also reset depending on the outcome of follow up inspections. In asset management terms, service levels are improving as a result.
- 4.1.6 Whereas both Gloucestershire and Wiltshire have some large conurbations; they are mainly rural counties. Swindon, in contrast, manages a dense urban network. Although it consists mostly of unclassified roads, most sections in or near the town centre act as signed routes or 'rat runs' accessing key destinations or the trunk road and motorway network. These movement patterns are subject to continuous change and are now associated with asset information in prioritising work and revisions of the register of traffic sensitive streets. In addition, strict guidelines are being drawn up for inspections, partly because of restrictions on vehicle access but also because of the presence of parked vehicles, hoardings and other objects that obscure inventory elements. For these sections reference surveys of inventory are timed to avoid these temporary obstructions so that inventory location is known prior to condition inspections being commissioned. This practical and considered approach is being shared to see where improvements can be made to the asset management processes within the partner authorities.

4.2 Beyond the partnership

- 4.2.1 The process of sharing best practice beyond the partnership has already begun. Both Gloucestershire County Council and Wiltshire County Council have collaborated with their private sector partners on articles published in The Surveyor. Wiltshire's article prompted considerable interest and the County Council, in conjunction with Mouchel and the WRc Group, is now making the software available to other local authorities.
- 4.2.2 Gloucestershire County Council has hosted a number of presentations and demonstrations for colleagues from other local authorities and consultants including North Somerset, Atkins and Swindon on the Routemapper video system. Gloucestershire also presented their experience of video asset data collection and its applications to the RouteMapper User Group in December 2007 and 2008.



Surveyor – August 2008

Gloucestershire collaborated with IBI Group on an article explaining how the video survey has been used and the applications that have emerged.

Surveyor – September 2005

Wiltshire collaborated with Mouchel and WRc on an article outlining the approach to drainage asset collection.

- 4.2.3 As regional champion it would be our intention to promote the innovative use of video technology to other authorities within the region through the actions in our Communications Plan. Whilst Gloucestershire would take the lead role, all three authorities will be involved in delivering the Communications Plan as outlined below:

- A national conference organised and hosted by the three authorities to cover the techniques, applications and benefits of video technology.
- A joint presentation to the South West Benchmarking Group.

- A joint presentation to the Midlands Asset Management Group.
- A technical paper for publication in the industry press, e.g. Surveyor or similar.
- An open invitation to other authorities to visit for demonstrations/discussions of the technology and applications.
- Set up of an Internet user group for sharing best practice, new ideas and questions with an open invitation to other authorities interested in using video technology.
- Joint press releases following procurement or other joint activities.

4.2.4 Our geographical location gives us the added advantage of close working relationships with authorities in other regions, most notably the Midlands and South East.

5.0 Conclusion

5.1.1 Gloucestershire County Council, Wiltshire County Council and Swindon Borough Council are jointly making an application for Element 2 funding to continue the successful asset management work that has already begun. Using video in an innovative way has changed the way in which investment and maintenance decisions are made in all three authorities and this is an approach we are keen to share with other local authorities.

5.1.2 An agreement is in place between the authorities covering how any awarded funding would be split between us and a clear partnership approach is intended.

5.1.3 If Gloucestershire, Wiltshire and Swindon were successful in this joint bid, we would relish the opportunity to be regional champions for the South West and would take full advantage of the chance to disseminate our experiences as outlined in the previous section. In order to do this we intend to work with DfT and GOSWA to develop clear lines of communication and share best practice with a wider audience of authorities.

5.1.4 The award of Element 2 funding would also enable us to continue to capitalise on the benefits that an asset management approach can bring. Some of the key elements would include coming together to procure further video survey of the highway network – a joint approach to this will enable us to benefit from the economies of scale, drive down costs and get best value. In addition, we are all keen to pursue the procurement of further drainage survey work, making best use of one another's experience and benefitting from our joint purchasing power. On a basic level, the award of Element 2 funding will enable us all to accelerate our asset management data collection and TAMP development and completion – with fuller, better data inventories we can extend the asset management approach to making data driven decisions about our highway network maintenance. One other key benefit that we see from working together is the standardisation of data collection techniques across our authorities – this helps to ensure good standards and better data. We are keen to work with the Department to establish national data collection standards applicable to different data collection techniques to proliferate these benefits across the Southwest and beyond.

5.1.5 Whilst we appreciate that the Department have not made indications about funding allocations, the partners in this joint bid are confident that an allocation of between £1.5 million to £3 million would be able to be usefully spent on furthering the aims of the asset management approach that we have set out within this bid.