EFFICIENCY TOOLKIT for LOCAL HIGHWAYS and TRANSPORTATION

Promoting Improvement and Efficiency in Local Highways services

Developed by the Highways Efficiency Liaison Group (HELG)

October 2008 version 2

Highways Efficiency Liaison Group (HELG)

Representing government, local government, private and professional interests in highways.

HELG is a unique industry wide body which aims to support the whole highways industry in identifying and delivering improved and increasingly efficient highways services.

HELG Aim

To support the whole highways industry in identifying and delivering improved and increasingly efficiency highway services.

HELG Membership

Association for Consultancy and Engineering
Civil Engineering Contractors Association
Constructing Excellence
County Surveyors Society
Department for Transport
Highways Agency
Highways Term Maintenance Association
Institution of Highways and Transportation
Public Private Partnerships (4Ps)
Regional Improvement and Efficiency Partnerships
Technical Advisors Group

HELG has developed a new Business Plan and has two Groups, the Best Practice Group and the Visibility Group. The Toolkit has been developed by the Best Practice Group.

Association for Consultancy and Engineering
acenet.co.uk

Civil Engineering Contractors Association
ceca.co.uk

Constructing Excellence
constructingexcellence.org.uk

County Surveyors Society
cssnet.org.uk

Department for Transport
dft.gov.uk

Highways Agency
highways.gov.uk

Highways Term Maintenance Association
htma.co.uk

Institution of Highways and Transportation
iht.org

Public Private Partnerships Programme
4ps.co.uk

Regional Improvement and Efficiency Partnerships
lga.gov.uk

Technical Advisors Group
t-a-g.org.uk

For enquiries or suggestions for improvement on this Toolkit please contact: info@helg.org

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For further information, case studies, etc, see www.helg.org

1. Introduction

With a national cash-releasing efficiency target in place and no mandatory local authority or service area targets, the responsibility to deliver improvements to services and to achieve value for money cash-releasing efficiencies lies firmly with local authorities.

Construction is one of the major areas of public expenditure and highways is a significant area within construction. It is acknowledged in the industry that there are improvement and efficiency gains to highways services which can be achieved through transforming culture, procurement and processes.

This Toolkit is designed to help local authorities identify, measure, and justify service improvements and efficiency gains in highways and transportation services. It draws on local authorities' experiences, provides case studies and measurement techniques that authorities may wish to draw on or use, and includes advice on:

- Cash-releasing efficiency gains
- Quality crosschecks
- Measuring service improvement
- Examples, experiences and case studies

The national measurement regime for highways has been reduced and there is greater local accountability through Local Area Agreements and similar. It is important that highways services can demonstrate how they contribute to social and economic regeneration and the measurement matrices in this Toolkit offer a way to relate highways services to outcomes as experienced by the whole population as users of the highway network

Asset management is an important element of highways service and CIPFA in Local Authority Transport Infrastructure Assets, June 2008, considers that improved long term value for money from proper asset management could be equivalent to at least 5% of the capital and revenue maintenance spend.

The Toolkit builds on detailed general advice and examples in Measuring and Reporting Value for Money Gains, expected to be published by CLG in late 2008, and in the 2007 Highways Efficiency Toolkit.

A number of suggested areas and methods for achieving improvements and efficiencies are indicated which authorities may find useful. Local authorities may of course find improvements and efficiencies in other aspects of their Highways services, and use other methods of measurement.

Further advice and case studies can be found at:

Additional HELG advice and further case studies as they become available:
www.helg.org

Constructing Excellence demonstration projects:
www.constructingexcellence.org.uk

Regional Improvement and Efficiency Partnerships: eg, www.wmcoe.gov.uk

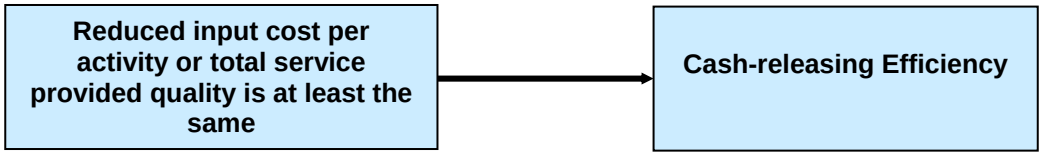
National Highways Benchmarking Club: www.highwaysdesign.econtrack.net

2. Efficiency and Measurement

Value for money gains, i.e. cash-releasing efficiencies, result if services are provided to at least the same level of quality for reduced cost. They are self-assessed by local authorities and the gain reported nationally through national indicator NI 179 (Value for money – net value of on-going cash-releasing value for money gains since the start of 2008/09).

CLG Guidance, see section 1,sets out how financial baselines should be established, basic VfM measurement principles, VfM from capital expenditure, etc, and provides examples of eligible and ineligible efficiencies.

Efficiencies can result from either revenue or capital expenditure. If the level of service is reduced through the change then a service reduction, not an efficiency, has resulted.



To demonstrate that the level of service is at least the same as before, it is recommended that local quality crosschecks are used, see Section 5.

Efficiency Areas

The national Delivery Plan, Delivering Value for Money in Local Government: Meeting the Challenge of CSR07, CLG 2007, summarises tools and techniques to assist authorities achieve efficiency gains in the areas of business process improvement including collaboration, smarter procurement and asset management.

The table below give examples of typical highways actions related to the three delivery areas.

Local authority experiences, worked examples and case studies are in Appendices B, C and D

Business process improvement, including collaboration

Potential Efficiency Area	Potential efficiency actions
Restructuring	• Redesign service delivery • Partnership working arrangements • Value management
Processes	• Integration of services/activities • Cross sector collaboration with other services • Use of less expensive materials for equal quality • Improved working practices • Improved management of third party claims
Information technology	• Electronic reporting of faults by users • Database for logging and faults and repairs • Using the internet to provide customer services
Waste	• Reduction /minimisation • Reuse / recycling of materials into highway works.
Capital Schemes	• More efficient investment programmes • Preparation and delivery time improvements
Collaboration between public bodies	• Joint contracts • Shared framework contracts • Sharing services/activities across authorities •

Smarter procurement

Potential Efficiency Area	Potential efficiency actions
Procurement of highways services, eg management and maintenance of roads, footways, bridges, lighting and other services	• Improvements in the procurement process • New contract initiatives • Delivering more for the same cost or the same or better for reduced cost. • Larger / longer contracts with better supply chain management.

Asset management

Potential Efficiency Area	Potential efficiency actions
Asset management	• Improved data collection and management • Invest to save projects where capital expenditure results in reduced revenue costs • Whole life costing of transport assets, eg roads, bridges, lighting, etc. • Office / depot / equipment rationalisation.

3. Inflation

It is possible to show cash-releasing efficiency through withstanding inflation against rising costs if service levels remain the same or improve. The rate of inflation to be used is the ROADCON index. Other construction inflation indices may be in use by individual authorities and in contracts, but ROADCON is used in efficiency calculations.

VfM efficiencies calculated through this method cannot of course also be claimed as individual efficiencies.

ROADCON

The provisional value of ROADCON for the 2007/08 Efficiency statement was **5 %.**

The provisional value for 2008/09 is expected to be available in spring 2009 and will be available on www.helg.org

Example 1:

An Authority has a revenue budget of £10M for highway works in both 2007/08 and 2008/09. Service Levels within the whole service have remained the same and it has absorbed inflation through a series of efficiency measures. The provisional value of ROADCON is 5%.

Efficiency = £10m x 5 % = £ 500,000

Quality crosscheck, see section 5:

For a broadly based service efficiency gain, the Authority has determined that a range of performance indicators should remain the same or improve.

Indicator	2006/07	2007/08	Change
Customer satisfaction, CS 1	51%	52%	improved
Killed or seriously injured casualties, NI 47	200	196	improved
Condition of Principal Roads, NI 168	7%	7%	same
Condition of non p classified roads, NI 169	13%	13%	same
Condition of footways, BV 187	15%	15%	same
Safety defects repaired on time, SA2	99%	99%	same
Street Lighting faults, BV 215	3 days	3 days	same

Example 2

As example 1, but the authorities highways spend increases by 3% through a series of efficiency measures.

Efficiency = £10m x (5-3) % = £ 200,000

Quality crosscheck: as example 1.

4. Service Improvement

4.1 Measures

Measuring service from the perspective of the user needs outcome measurement but there are few outcome measures and indicators available in highways at present. Many measures and indicators in use tend to be output based and related to contract management and operations.

Measurement of service improvement is not related to national reporting requirements but may be something authorities wish to do locally.

The Code of Practice for Highway Maintenance Management, 'Well Maintained Highways', defines local highways service objectives as Customer Service, Safety, Serviceability, and Sustainability. The Highways Agency aim is 'Safe Roads, Reliable Journeys, Informed Travellers'.

Common aims of all highway services can therefore be described as:

- Customer service
- Safety
- Serviceability / Reliable journeys
- Sustainability

Common activities on all highway networks can be described as:

- Operate
- Maintain
- Improve

Bringing common aims and activities together provides a basis for outcome measurement:

	Operate	Maintain	Improve
Customer Service			
Safety			
Serviceability/ Reliable Journeys		Measures	
Sustainability			

A more detailed expansion of the service objectives is shown in Matrix A below. The detail is taken from 'Well Maintained Highways'.

Factors which it would be useful to measure are in the boxes within the matrix.

Highways Performance Measurement Matrix A					
			Local Transport Plans, Highways Agency Business Plan, Transport Asset Management Plan		
			Operate	Maintain	Improve
			Traffic Management Plan Network Management Plan / Manual Traffic Operator	Highway Maintenance Plan	Capital Improvement Programme
Objectives	Customer Service	Customer satisfaction	User satisfaction		
		Overall Transport Service	Independent audit of services		
		Responding to enquiries	Effectiveness of customer response		
	Safety	Ensuring Safety	Safety inspections. 3rd Party Claims. Accidents and incidents on the network.		
	Serviceability /Journey time reliability	Ensuring availability	Road user network availability Effectiveness of response to emergency incidents		Impact of scheme on availability of road Predictability of times to deliver schemes
		Achieving integration	Balance of facilities for different users		Impact of scheme on integration of transport modes
		Maintaining reliability	Journey time reliability for different users Peak period traffic flows		
		Maintaining Highway Condition		Condition of various types of asset	
	Sustainability / Respecting the Environment	Minimising costs over time		Reactive maintenance costs. Whole Life costing principles	Cost predictability for delivery of schemes. Works defects
		Maximising environmental contribution		Recycled material used for maintenance. Inspection of amenities	Recycled material used in schemes. Air pollution levels
		Maximising value to community	Quality of Life, e.g. social inclusion, regeneration, street scene and community safety		

4.2 Performance Indicators

There are a wide range of performance indicators in use in the highways industry. A selection of nationally recognised indicators which have a close relationship to service to the public and to the factors in the Matrix A have been selected and placed into the same framework, see Matrix B.

Indicators have been sourced from statutory indicators and Codes of Practice. Highways Agency indicators are included if authorities consider them appropriate. Indicators relating to service management or to contract management have not been used.

3.3. Evaluating Service Improvement

Service elements may possibly be reflected and measured by single indicators but wider aspects of the highways service are likely to be best measured by considering a combination, or basket, of indicators. A combination of indicators acting together better reflects the user experience of highways, ie a range of aspects of the service experienced together.

The Measurement Matrices above therefore provide a basis for highway authorities to measure aspects of the highways service, or the whole service, on a consistent basis.

A high-level, whole service, approach to measurement may well involve using a wide range of indicators in one or in several baskets. A focus on aspects of the service may use a single basket or even a single indicator approach.

If baskets of indicators are used for measurement, authorities will need to determine whether it is appropriate to:

- Have all indicators improving or to use a net positive balance of improving and deteriorating indicators
- Apply weighting factors to particular indicators.

If the indicators in the matrix are not appropriate for a particular improvement or authority then other indicators may be used either in addition or as alternatives.

See Westminster City Council case study in Appendix D.

Highways Performance Measurement Matrix B					
			Local Transport Plans, Highways Agency Business Plan, Transport Asset Management Plan		
			Operate	Maintain	Improve
			Traffic Management Plan Network Management Plan / Manual Traffic Operator	Highway Maintenance Plan	Capital Improvement Programme
Objectives	**Customer Service**	Customer satisfaction	CS 1 CS 2 HA Customer Satisfaction Measures		
		Overall Transport Service	LTP / APR Score		
		Responding to enquiries	CS 3 API 3		
	Safety	Ensuring Safety	NI 47 NI 48 SA 1 SA 2 SA 3 SA 4 HA Safety Measures API 2 API 11		
	Serviceability / Journey time reliability	Ensuring availability	BV 100 BV 178 API 1 API 13	SE 2 API 9 B2	API 6
		Achieving integration	NI 175 NI 198 BV 165		
		Maintaining reliability	NI 167 NI 178 HA Congestion Measures	SE 5 SE 6 B3	
		Maintaining Highway Condition		NI 168 NI 169 BV 187 BV 215 BV 224b SE 11 L(a) L(b) L(c) L(d) B1 B4 API 12 API 14	
	Sustainability / Respecting the Environment	Minimising costs over time		SU 1 SU 2 SU 3	SU4 API 7 API 10
		Maximising environmental contribution	NI 186	NI 195 SU 6 SU 7 API 4	API 15
		Maximising value to community	SU 5 Quality of Life Indicators		

See Appendix A for details of performance indicators.

Note. Non highways indicators, e.g. street cleansing, can be also be used if appropriate.

5. Quality Crosschecks

A similar process to measuring service improvement may be used for devising local quality crosschecks to support a cash-releasing efficiency. In this case the aim is to demonstrate that the service, or an appropriate element of it, has remained at least the same as before the efficiency.

One or more indicators may be used, as in Section 4. The wider the scope of the efficiency, the less likely that a single indicator will be adequate and authorities may consider using more than one indicator. For a major procurement, a significant service reshaping or withstanding inflation, authorities may wish to choose several indicators or several baskets of indicators.

Authorities may consider that the quality crosscheck is delivered if one or more indicators within a basket has reduced. This will be a local decision and must be in the context that the service outcome for people is at least the same or improved, i.e. it may be delivered in a different way.

Example 1

An authority makes a cash-releasing efficiency in its customer response service. It refers to the indicators matrix.

'Customer Service - Responding to Enquiries' offers a choice of indicator CS3 from the Code of Practice or the Highways Agency indicator API3. The authority selects CS3 and is able to show that the value of CS3 is at least the same as the previous year.

Example 2

An authority makes a cash-releasing saving in its activities to maintain highway condition. It refers to the matrix of indicators matrix.

'Serviceability' – Maintaining highway condition' offers several indicators covering roads, lighting and bridges. The authority decides the appropriate crosscheck is to demonstrate that a basket of these indicators, ie NI168 and 169, BV187, 215 and 224b, SE11, La – d, B1, B4, are all the same as before or improved.

Further examples are within the worked examples in Appendix C

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Appendix A Performance Indicators used in Matrix B

National Indicators – *www.communities,gsi.gov.uk*

NI 47 People killed or seriously injured in road traffic accidents
NI 48 Children killed or seriously injured in road traffic accidents
NI 167 Congestion- average journey time per mile during the morning peak
NI 168 Principal roads where maintenance should be considered
NI 169 Non Principal roads where maintenance should be considered (classified roads)
NI 175 Access to services and facilities by public transport, walking and cycling
NI 178 Bus services running on time
NI 186 Per capita CO2 emissions in the LA area
NI 195 Improved street and environmental cleanliness – graffiti, litter, detritus, fly posting
NI 198 Children travelling to school – mode of travel usually used

ex Best Value Performance Indicators *(used by some LAs as local indicators)*

BV 100 Temporary Traffic Control
BV 165 Pedestrian Crossings with Facilities for Disabled People
BV 178 Rights of way
BV 187 Condition of main Footways
BV 215 Rectification of Street Lighting Faults
BV 224b Non Principal roads where maintenance should be considered (un classified roads)

Code of Practice for Highway Maintenance ***- 'Well Maintained Highways' – TSO, July 2005.***
www.roadscodes.org
(Where indicators are the same as NIs or ex BVPIs, only the NI or BVPI occurs in the matrix).

Customer service:
CS 1 – Net satisfaction with the service
CS 2 – Net satisfaction with consultation and information
CS 3 – Dealing with requests, complaints and claims within policy timescales.

Safety:
SA 1 – To measure the timelines of safety inspections
SA 2 – Safety defects repaired on time
SA 3 – Skidding resistance of Principal Roads
SA 4 – Third party claims repudiation rate

Serviceability:
SE 1 – Temporary Traffic Control [BV100]
SE 2 – Winter service precautionary salting
SE 3 – Public rights of way easy to use [BV178]
SE 4 – Pedestrian crossings with facilities for disabled people [BV165]
SE 5 – Schemes value managed
SE 6 – Works completed within published dates
SE 7 – Principal roads where maintenance should be considered [NI 168]
SE 8 – Non - Principal classified roads where maintenance should be considered [NI 169]
SE 9 – Non - Principal unclassified roads where maintenance should be considered [BV224b]
SE10 – Category 1 and 2 footways where maintenance should be considered [BV 187]
SE11 – Category A and B cycle routes where maintenance should be considered

Sustainability:
SU 1 – Asset preservation
SU 2 – Reactive maintenance compared to planned
SU 3 – Claims compared to planned maintenance
SU 4 – Schemes subject to maintainability audit
SU 5 – Schemes subject to sustainability audit
SU 6 – Works undertaken with recycled and secondary aggregates
SU 7 – Amenity index

Performance Indicators used in Matrix B (cont)

Code of Practice for Highway Lighting Management – 'Well Lit Highways' *– TSO, November 2004*

L (a) – Number of faults
L (b) – Lights working as planned
L (c) – Failed service connections
L (d) – Damage incidents

Code of Practice for Management of Highway Structures *– TSO, September 2005*

B1 - Condition
B2 - Availability
B3 - Reliability
B4 - Backlog

Highways Agency Area Performance Indicators

Further Information on APIs can be obtained from *HA_PM_Team@highways.gsi.gov.uk*

API 1 Response to Emergency Incidents
API 2 Response to Category 1 Defects
API 3 Customer Satisfaction
API 4 Environmental Amenity Index
API 9 Winter Maintenance
API 10 Defect Free Work
API 11 Road Traffic Accidents at Roadworks
API 12 Street Lighting Outages
API 13 Network Availability
API 14 Third Party Claims
API 15 Recycling and Re-use

Appendix B Local Authority Efficiency Experiences

The examples below are 'local transport (highways)' efficiency gains claimed in 2006/07, taken directly from the CLG website (www.communities.gov.uk). Previous years experiences are contained in previous Toolkits, see www.helg.org. The 2007/08 information is due to be published by CLG soon.

The example efficiencies are provided to assist authorities when seeking ideas and innovation. They are not endorsed by inclusion in this Toolkit and non cashable efficiencies are no longer applicable.

Bedfordshire County Council	£1,457,000	The Council has consolidated its highway services into one new contract which commenced on 1 October 2005. This contract has been recognised by practitioners and experts as innovative and an example of good practice in contracting. The new partnership arrangements are more effective in delivering due to the clear allocation of responsibility, better use of resources and more professional contract management by the Council. This saving was not reported last year as it was decided to give the contract 6 months to settle down and wait until it was embedded and running efficiently as it is now.
Bournemouth Borough Council	£51,000	• Use of Planning contact centre for highways enquiries • Improved Roll out of 'On Street Charging' • Joint Working with Poole - Traffic Manager, Winter Maintenance etc • Renewed partnering agreement for Engineering Services / Minor Highways Works (Involving Poole and extending period) • Review Statutory Advertising arrangements for Traffic Orders
Bradford Metropolitan District Council	£489,000	Improved programming and monitoring of projects ensuring management costs are kept low and that projects are delivered within fee targets. Staff cost reduction resulting from departmental restructure. Also included is a one off gain through reduced energy costs as a result of bulk purchasing

Cheshire County Council	£1,138,000	Cashable Savings: Achieved Efficiency gain delivered through absorbing costs of growth in Highway Maintenance (£385k) and cost of Traffic Management Bill (£60k). Reduction in insurance claims budget as a result of cataloguing highway records and targeted improvements to highway condition (£70k). Non-Cashable Savings: Achieved Contract efficiencies through new Term Maintenance Contract (£595k): The majority of the efficiency savings have been focused on the cost of highway maintenance and the associated term contractor which have been achieved through such measures as:- • More streamlined administrative processes and equipment e.g. multi-functional devices; • Earlier contractor involvement in scheme development; • Use of more efficient and effective methods and materials e.g. jet patching and street lighting columns.
Derbyshire County Council	£3,112,036	• By continuing to seek efficiencies during the year the in-house trading units were able to contain their costs at below inflationary levels whilst maintaining profitability level • A service redesign review of the winter maintenance service was commenced and savings were made in 2006/7 on the salting of roads by the use of a dry salt together with improving spread rates by more accurate calibration. Winter salting routes were also combined at one operational site producing route economies and vehicle loading savings.
Dorset County Council	£479,799	A new 25 year PFI street lighting deal includes savings from contract negotiations, reducing electricity usage and increased column numbers, amounting to £146k in this year (all ongoing, £68k of which is cashable). Savings achieved on the existing street lighting energy contracts by changing supplier to achieve better prices amount to £92k (ongoing and cashable). Highways maintenance work has been carried out below the rate of inflation, giving rise to efficiencies of £42k (ongoing and cashable).
Essex County Council	£4,860,000	One of the major strategies for this service area has been the improvement of road maintenance through a new maintenance strategy that has been developed. As part of this strategy, new contract arrangements were introduced from 1st April 2006, delivering significant efficiency gains to the Authority, improving value for money and enabling more work to be completed on the ground for the same budget - £4.8m.

Gloucestershire County Council	£1,210,000	Implement new highways maintenance contract generating significant efficiency savings - Gloucestershire County Council has joined forces with Atkins to create Gloucestershire Highways. The new contract, which is worth in excess of £30m a year for five years, is for the first time based on the quality of work carried out and customer satisfaction on Gloucestershire's roads, not just the cost of the work.
Leeds City Council	£540,000	• Highways - Increase in spend for highways maintenance over previous years has resulted in a reduction in the number of Third Party claims. This has led to a reduction in the required contribution to the Insurance Provision in respect of Third Party liability claims for accidents on the public highways. £468k. • Highways feasibility - review of workloads and priorities, reduced duplication between feasibility and design £72k
Leicestershire County Council	£1,100,457	Savings of £134k have arisen during 06/07 from reduced expenditure on salt for road gritting. Less salt has been required because a new material is now being used. The properties of the new material mean that a lower quantity is required, at a lower cost, to achieve the same end result. This saving is £266k less than originally anticipated due to an over-estimation in the 06/07 forward look statement. A cashable efficiency gain of £302k has been achieved by rationalising winter maintenance routes. This has meant reduced duplication of routes whilst maintaining the same level of road coverage. This saving was not included in the 06/07 forward look statement.
London Borough of Enfield	£30,000	Retendering of Highways maintenance contracts for road gritting, gully cleansing and road and footways maintenance; savings are part year from November 2006
London Borough of Kingston upon Thames	£265,000	Re-let highways maintenance and resurfacing contracts through new procurement process. Street lighting - EDF jointer employed on a day works basis. Reduction in staff in Highways Maintenance. Procurement savings for On Street parking enforcement.

London Borough of Southwark	£100,000	Efficiencies were achieved through the procurement process of the Highways Term Contract. Negotiations of the new term contract have led to reductions in unit costs. An industry consultation prior to contract establishment suggested a way forward to have fewer number of contractors. 9 small term contracts were merged to 2 providing key efficiencies. Also rates negotiated were lower than the previous contract in place. Regular inspection work is carried out on the contractors work to ensure maintenance of standards.
Reading Borough Council	£101,000	Savings were as a result of procurement savings on winter maintenance tender (15k) and savings in employee costs due to management re-structure and minor changes in terms and conditions (86k)
Royal Borough of Kensington and Chelsea	£341,000	The Council has continued to refine its procurement practices, including those for materials to repair and renew the highways and pavements in the borough. Further savings relating to the purchase of York Stone to maintain and replace the footways through price negotiation and inflation avoidance have led to a non cashable gain of £304,000.
Slough Borough Council	£20,000	We have implemented a number of small efficiency actions arising from the Best Value review undertaken regarding existing transport budgets, providing minor efficiency gains of £20,000. These include introducing on-line works, ordering to the Council's traffic, highways, street cleaning and grounds maintenance contractor and reaping the benefits of a thorough drainage clean - thereby reducing the need for reactive service demands.
Somerset County Council	£204,000	Cashable savings in our principle highways contract have been delivered through the re-negotiation of contract payment mechanisms. In addition, we have calculated significant non-cashable savings arising from the absorption of maintenance costs for newly adopted roads within existing budgets.

Sunderland City Council	£971,007	The Highways Maintenance Inspections service has been re-modelled by amalgamating two teams under one management structure & implementing changes to working practices. As a result, the service is delivering proportionately more inspections from resources applied to the service. Ongoing savings have been achieved during the year of £24,734 (£12,233 cashable and £12,501 non cashable). Reduced prices due to PFI contract for street lighting being in place & reduced tariffs for energy being delivered through the PFI contract has achieved ongoing cashable savings of £21,352.
Surrey County Council	£1,374,372	Efficiencies derived from Surrey Highways Contract include the continued roll out of 'hot boxes' at Godstone and Esher to store resurfacing material nearer to site than from the supplier (£328,017). Use of a new material to repair potholes that eliminates the need for a temporary repair followed by a permanent repair (£395,947). The organisational restructuring and new ways of working have achieved staffing efficiencies (£477,342)
West Sussex County Council	£1,184,400	Prioritisation of highways maintenance work has enabled a greater length of road to be maintained within an increase in the maintenance budget of less than inflation. This represents a non cashable saving of £588K. In addition efficiencies from the new highway maintenance contract, reducing the numbers of orders and invoices, have achieved savings of £385K in administration costs.

Appendix C Cash-releasing Efficiency Examples

Business Process Improvement

BPI 1. Electronic Integrated Control System for Highway Maintenance

A review was carried out of the order and payment processes associated with highway maintenance operations. Separate systems and processes were replaced by an integrated system that enables highways client/supplier and highways client/corporate services to communicate electronically. The efficiency gain is calculated as the difference between the cost of the process before the efficiency measure and with the new integrated system in place.

	2006/07	2007/08	2008/09
Cost of software, development and implementation	£44,500		
Savings - systems	£39,100	£39,100	£39,100
- release of staff resources	£24,600	£24,600	£24,600
Total	£63,700	£63,700	£63,700
Efficiency Gain	£19,200	£63,700	£63,700

Quality Crosschecks: ex BV187, BV 223, BV224 and BV224b.

Contact for further enquiries:
GSD Wilkinson, Best Practice Manager, Cambridgeshire County Council (Tel: 01354 753815; Email: geoff.wilkinson@cambridgeshire.gov.uk)

BPI 2. Minor Works by Parish Lengthsmen

Parish Councils have the option of having minor works prioritised and addressed by the Term Maintenance Contractor (TMC) according to the Highways Management Plan, or to take a £2,000 contribution to the cost of a locally employed Parish Lengthsman. The Parish Lengthsman is managed by the Parish Council giving local control to works undertaken and to the level of service. There is a reduction of workload on the TMC. The Parish Lengthsman reports problems he cannot deal with, providing higher quality communication and clarity. Local residents feel 'someone cares' and report higher satisfaction (quality crosscheck). There are 44 parishes participating in this scheme.

Parishes: Contribution: £2,000/year. After clerk's administration costs this equates to £1,850/year for works. At £10/hr this is 185 hours work/year.
TMC: Two-man teams, so equivalent for comparison is half i.e. 92.5 hours. Since the TMC is not local, add travelling time at 3 hours/month i.e. 36 hours/year. Therefore hours/year = 92.5 + 36 = 128.5.

For 2005/06, comparing the TMC team with the cost of the lengthsman, there is a saving of £3,358 per Parish. With 44 parishes participating this would give an efficiency of £147,000, however Parishes took up the offer at different times in the year and the actual efficiency was £120,000.

Quality crosschecks: The QCC used is the result of satisfaction surveys undertaken with parishes participating in the scheme.

Contact for further enquiries:
Nick Yarwood, Partnerships & Contracts Manager, Worcestershire County Council (Tel: 01905 728648; Email: nyarwood@worcestershire.gov.uk)

BPI 3. Increasing Highway Inspection to Reduce Unjustified 3rd Party Claims

An Authority increases its inspection and support to undertake a locally enhanced inspection regime. It improves the recording of defects and claims handling and reduces sums paid out on unjustified claims. A rigorous review of claims received is undertaken which provides evidence to support claims handling.
The efficiency gain is calculated as the difference between the cost of the service without the efficiency measure and with the cost of activities undertaken. The reduction of claim costs occurs over a short period and will then be maintained at the lower level. Efficiency gains recorded will be related to the actual achievement in reductions in claims in the appropriate year.

	Year 1	Year 2	Year 3	Year 4	£k
Cost of additional inspection	60	60	60	60	
New reductions in claims	165	90	80	0	
Net new efficiency gains	105	30	20	0	

Quality crosscheck: CS3 (see App A).

BPI 4. Proprietary Road Repairs

A 'Jetpatching' process was used to repair potholes in order to improve cost efficiencies and value for money when compared with conventional methods of repair.

Patch	Traditional Hand Lay (per sq. m)	Jet Patch (per sq. m)	Difference (per sq. m)	Annual Quantity (sq. m)	Efficiency Gain (£)
50mm	38.49	24.59	13.90	13,770	£191,403
80mm	64.81	39.34	25.47	96	£2,445
				Total	£ 193,848

Quality crosschecks: Compares favourably with traditional hand-laying processes. Has additional substantial benefits over temporary repairs, namely safety, time, and process benefits. Minimises disruption to travelling public during application.

Contact for further enquiries: Tim Pemberton, Network Management, Cheshire County Council (Tel: 01244 603938 tim.pemberton@cheshire.gov.uk)

Smarter Procurement

SM 1. Two Contracts Combined into One

London Borough of Bromley let a new street lighting contract, combining improvement works and maintenance, which were previously two separate contracts awarded to different contractors. The new contract provided tenderers with an option to apply for one or both contracts. Where tenderers applied for both contracts, a discount was offered. This left the potential to remain with the current service split, dependent on the "best value" (ie monetary and quality) option.
The discount offered by tenders ranged between 2.6% and 5% year-on-year on a contract with an annual worth of £1.7 million (£1 million maintenance; £700,000 improvement works). For the tender selected, the saving made by combining the two contracts amounts to £50,000 per year.

Quality cross-check: ex BV215

Contact for further enquiries: Kirsty Armstrong, Business Coordinator, London Borough of Bromley (Tel: 020 8313 4317; Email: kirsty.armstrong@bromley.gov.uk)

SM 2. New Street Lighting Contract

Efficiency savings on a street lighting contract were made through a new contract. A comparison is made using the current contract and the 2005/06 contract prices inflated using ROADCON at 7% (illustrative value).

Cost based on previous contract	£633,000
Actual cost 2006/07	£551,000
Efficiency	£ 82,000

Quality crosscheck: Time to rectify faults, ex BV 215a 2005/06 3.34 days, 2006/07 3.09 days, ie improved

Asset Management

AM 1. Capital Investment in a Programme of Carriageway and Footway Strengthening

An Authority adopts a capital programme of renewals rather than annual localised patching to provide performance and safety improvements and reductions in future revenue maintenance expenditure.
Roads that have a high annual maintenance requirement are targeted so that future annual maintenance will be reduced. This will include roads where high traffic disruption is caused by patching works. A 'one-off' capital programme is developed for strengthening of targeted roads. The efficiency gain is calculated as the difference between the cost of the service without the efficiency measure and with the cost of activities normally undertaken.

	Year 1	Year 2	Year 3	Year 4	£k
Capital works with a 20 year life	403,800				
Annualised cost of capital	21,199	21,199	21,199	21,199	
Alternative revenue maintenance	27,690	27,690	27,690	27,690	

Quality Crosscheck: NI 168, NI 169, ex BVPI 187

AM 2. Capital Investment in Upgrading Traffic Signal Heads

An Authority invests capital in a programme of new LED Traffic Signal Heads. This will reduce energy requirements and lamp replacement costs. Existing lamps are around 50 watts and LEDs are around 15watts - approximately 300kwh/year reduction. Existing lamps have to be replaced every 6 months whereas the LEDs are assumed to last for 10 years. (LEDs have substantial life which is yet to be established but railway LED signals are known to have remained operational for 15 years).

The efficiency gain is calculated as the difference between the cost of the service without the efficiency measure and with the cost of activities undertaken. The efficiency gains are also likely to reduce energy requirements providing an additional efficiency.

	Year 1	Year 2	Year 3	Year 4	£k
Capital Works with a 10 year life	39500				
Annualised cost of capital	4148	4148	4148	4148	
Alternative revenue maintenance	5782	5782	5782	5782	
Net new annual efficiency	1636	1636	1636	1636	

Quality crosscheck: L(a), see App A

Appendix D Case Studies

Case Study Midlands Highway Alliance

The Midland Highways Alliance (MHA) seeks to increase cross authority working by promoting joint procurement of highways services and by identifying and embedding best practice. The collaboration will improve the procurement and delivery of five strands of highways services:

- Major capital highways schemes
- Capitalised maintenance and improvement schemes (Medium schemes)
- Professional services
- Highway term maintenance
- Commodities

Participating highway authorities are:

Derby City Council	Derbyshire County Council
Highways Agency	Leicester City Council
Leicestershire County Council (Lead LA)	Lincolnshire County Council
Northamptonshire County Council	Nottingham City Council
Nottinghamshire County Council	Peterborough City Council
Rutland County Council	

The successful contractors for the MHA Medium Schemes Framework are Balfour Beatty/Birse, Carillion, Osbornes/Aggregate Industries, and Tarmac. The Medium Schemes Framework is for structural maintenance and new highway schemes each valued at up to £8.0m. The MHA estimates that its local authority members will procure projects worth around £28 million through this new framework in the first year with the Highways Agency procuring a further £50m.

The Medium Schemes Framework is available to all highway authorities, along with the Highways Agency, in the East and West Midlands Regions, together with those adjacent authorities in neighbouring regions.

By working together, the MHA aims to reap efficiency gains of up to 10%, speed up the procurement process, deliver schemes to a higher standard and improve cost certainty. The spend through the framework is expected to increase up to £150 million in following years as public bodies are placed under greater pressure to realise efficiency gains in the face of spending constraints.

Procurement of commodities has started. This has lead to substantial savings (£700k over three years) on highway salt in a supply framework procured by ESPO (Eastern Shires Purchasing Organisation) on behalf of both East and West Midlands.

There is also a successful Professional Services Framework set up by Nottinghamshire, Derbyshire and Leicestershire.

A further strand of activity is promoting best practice in term maintenance and small improvement activities. A best practice model has been developed and each authority has been compared with this. The outcome, apart from an improvement 'hit list' for each authority, is a series of Alliance improvement activities to help authorities converge towards best practice.

Higher quality projects are also a priority as the Alliance will share innovation and performance data across its members, improve working practices, and aid workflow throughout the supply chain.

Contact for further information

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Case Study **Gloucestershire Highways**

Participants

Gloucestershire Highways is a partnership between Gloucestershire County Council and Atkins, established on 1 April 2006.

Executive summary

Efficiency savings of 4.0% per year have been achieved in the first two years of the partnership through a range of initiatives including a significant re-structuring and rationalisation of the service. This has allowed Gloucestershire Highways to deliver consistently improved service standards that have met or exceeded the majority of customer satisfaction and LTP2 targets.

Gloucestershire's ability to respond to the impact of the summer 2007 floods emphasised the advantages of the partnership arrangements. Robust support was provided in helping GCC cope with and begin to recover from the most significant emergency in the county since the Second World War.

Brief background and context

Gloucestershire Highways (GH) was formed on 1 April 2006 to provide integrated highways and transportation services to Gloucestershire County Council (GCC). The innovative partnership has brought together responsibility for the management and maintenance of the highway network into a single integrated team comprised of 350 GCC and Atkins staff. The team is led by the Head of Gloucestershire Highways who is also a member of GCC's Environment Department Management Team.

The performance of GH is monitored by a Supervisory Board comprised of Lead Cabinet Members and Directors from GCC and Atkins. The Supervisory Board sets the strategic direction of GH including Key Performance Indicators (KPIs) linked to the overall objectives of the Council. The KPIs include 8 Strategic Performance Indicators that define the strategic outcomes to be achieved by GH including performance targets linked to customer satisfaction, LTP2 objectives and year-on-year efficiency savings.

25 output based Operational Indicators set targets for the operational performance of GH including public satisfaction with construction and maintenance works, the accuracy of target cost estimates, completion of safety defects on-time and robustness of winter maintenance activities.

Performance targets have been 'fine-tuned' over the first two years of the partnership and have been refined to reflect the changing needs and priorities of GCC. Additional indicators have been introduced, for example, to reflect the increased priority of flood alleviation work and the additional budgets made available for flood alleviation work.

Payments to Atkins are based on lump sums for maintenance works and the management of the services and target costs for capital maintenance and improvement works. Uniquely, profit is paid only on the achievement of Key Performance Indicator targets.

Improvements and efficiencies made

The performance management system has proved extremely effective in driving efficient working. Integrated team working has promoted effective planning and programming of work across the service to achieve high quality services that provide GCC with demonstrable value for money. Early Contractor Involvement, including input from collocated Key Supply Chain Partners, has allowed the most efficient allocation of resources against performance objectives. Resource Schedules are developed before the start of each financial year to allocate resources to each area of the service. An Annual Contract Review is prepared at the end of each financial year to examine the performance of GH and the achievement of best value. The review is audited by GCC Internal Audit and submitted for approval to GCC's Overview and Scrutiny Committee.

Over the first two years of the partnership efficiency savings of 4.0% per year have been achieved on an annual budget of £36.7m. Efficiencies have been substantiated and quality cross checks carried out using the Local Highways Efficiency Toolkit and by benchmarking performance with other authorities using data provided by the CSS South West Highway Service Improvement Group.

Particular issues addressed

A key area addressed by GH has been the need to balance minimising of whole life costs whilst maximising customer satisfaction. This has been achieved by developing a culture across GH that focuses on the efficient and consistent management of highway assets across the County whilst working with local councillors and communities to understand their needs. The number of depot based area teams has been reduced to three with Stakeholder Managers appointed to act as the local focal point for Members and local communities. Particular areas of success achieved in the first two years of the partnership have included:

- Improving the condition of Principal roads by 6%, Non-principal Classified roads by 5% and Unclassified roads by 7%
- Reducing the number of slight road accident casualties by 25%
- Minimising third party insurance claims - only £13,750 was paid out by the County between April 2006 and March 2008
- Increasing the number of public transport journeys by 15%
- Supporting GCC achieve 4* rating from the Audit Commission

Measurement and valuation of improvements and efficiencies

The setting of performance targets across the whole of the services before the start of each year has proved critically important. Performance targets are agreed by GH's Supervisory Board and published in an annual Business Plan for the service. The performance objectives in Business Plans are specifically linked to GCC, Environment Department and LTP2 objectives. Performance indicators are assigned to members of GH's Senior Management Team who report progress at monthly management team meetings. Ownership of performance targets is driven by linking targets to the personal objectives of operational teams and individual members of staff.

Contact for further information

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Case Study **Nottinghamshire Highways Partnership**

Participant(s) Nottinghamshire County Council (lead), Tarmac Ltd, Scott Wilson Ltd, Mansfield DC, Ashfield DC, Broxtowe BC

Executive summary

Nottinghamshire's pursuit of highways based efficiencies is led by the Nottinghamshire Highways Partnership (NHP), an innovative approach to partnership working that combines public and private sector expertise to deliver highways services

Since its inception in 2006 the NHP has generated significant efficiencies, both through procedural changes and value engineering, and, whilst the actual monetary value of these efficiencies has yet to be finalised, the partnership relationships have allowed an open and honest approach to capturing and understanding these efficiencies.

This innovative partnership arrangement allows Nottinghamshire to continually pursue efficiencies and improvements in delivery of highways services and the annual highways programme of works.

Brief background and context

In 2006 Nottinghamshire created the Nottinghamshire Highways Partnership (NHP), the brand under which the authority promotes and manages it's highways partnerships.

Developed to provide a full range of highways maintenance, construction and design services the NHP combines Nottinghamshire's in-house Operations and Design capabilities with the expertise, knowledge and capabilities of its partners; three local district authorities, Tarmac Ltd and Scott Wilson Ltd.

The NHP is managed by a dedicated partnership team which provides the drive and focus to continual development and partnership awareness.

Particular issues addressed in establishing the NHP

- *Partnership Management*: a dedicated resource has provided a crucial role in managing and developing the NHP.

- *Culture Change*: significant efforts put into ensuring staff understand how partnership working differs from the traditional 'client / contractor'

- *Promoting the benefits:* essential to ensure staff understand the benefits that partnership working delivers – both to the authority (long term security) and to the delivery of their day jobs. The higher percentage of staff that utilise the facilities available under the partnership, the higher the value of the efficiencies delivered
- *Understanding all partners needs*: in order to maximise efficient utilisation of the partnership it is essential to have a sound understanding of the commercial expectations of partner organisations

Measurement and Valuation of improvement(s) and efficiency(s)

The NHP has developed a two stage process that should allow accurate capture, measurement and valuation of efficiencies. The process is designed to remove 'jargon' from project and scheme delivery teams, with the onus put on partnership management, whose role it is to provide the link between project delivery and partnership delivery, to interpret basic project delivery information and identify, capture, measure and share efficiencies. This approach is still under development and the table below identifies the areas where efficiencies have been identified to date

Improvement(s) and efficiency(s) identified to date

Measure	Nature of Improvements / Efficiency	Efficiency Benefit Rating (1=high, 5 = low)
Partnership Team	Provides focus on driving, understanding and logging efficiencies	1
Open book accounting	Reduces staff input on pricing of schemes, removes need for re-measures and claims meeting	1
3 tier management structure	Effective use of staff time	2
Combined training	Utilises expertise available within the partnership and reduces need for external training	2
Direct access to partners services	Removes lengthy tendering procedures	2
Pain / Gain incentive	Provides long term efficiency and value for money tool	2
Centralised Partnership Accounting	Streamlined procedures reduce duplication of efforts and staff input	3
Adoption of mutual processes	Reduces administrative workload and reduces training needs	3
Virtual meetings	Reduces unnecessary travelling	4

Contact for further information

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Case Study

National Customer Satisfaction Initiative – Highways and Transport Services

The National Highways Benchmarking Club in Collaboration with
The CSS South West Highways Service Improvement Group (SWHSIG)
Supported and endorsed by the National Highways Efficiency Liaison Group (HELG),
SW Regional Improvement and Efficiency Partnership (Lift SW) and
The Government Office for the South West (GOSW)

Highway authorities engage with local people to gauge the quality of services and to drive service improvement. Different standards and methodologies have led to little reliable or statistically valid opportunity to benchmark or compare results of such work. Responding to local, regional and national needs for better standards in customer satisfaction work, a new method of gauging public satisfaction in Highway and Transportation Services has been developed.

A questionnaire was developed and Ipsos MORI provide the survey service through the National Highways Benchmarking Club. The terms of the contract enable economies of scale to be delivered with a growing participant base and in May 2008 33 English highway authorities had signed up to the survey. Response forms enable geographical plotting of results and minimal manual handling costs. Questions on respondent profile, circumstances, existing travel choices and location were added to facilitate detailed and extensive analysis and drill down opportunities. The 2008 fee was £6,000 for an existing highway authority member of the Benchmarking Club and £6,500 for a non member.

The first survey was conducted in June 2008. Around 27,000 responses were received from 150,000 mailed out. The average response of 19% is significantly higher than the 12.5% predicted by experts and provides a reasonably high level of statistical confidence.

Efficiency in Conducting the Survey and in Data Analysis

The national backdrop was one of widespread variation in standards and methodology along with wholesale and frequent wheel reinvention in the way such work was carried out.
Opportunities to share best practice have been limited and bespoke one off surveys tend to carry a high price tag. It is likely that a survey of this new type, providing this level of detailed response, would cost around 100% more if it was carried out as a 'one-off'. Some authorities have spend large sums on surveys and without the comparison and benchmarking opportunities offered here, and a number of authorities have deferred or cancelled higher cost work to take part. On average it is reasonable to say that the survey has provided a typical participant authority with a cashable efficiency of around £6,000.

An additional efficiency is the added value of central survey analysis. It would otherwise be for authorities to analyse independently and with likely inconsistency and therefore poor opportunity for comparison and best practice identification and sharing. It is difficult to assign cashable savings to this efficiency, but it is estimated to be around £1500 per authority on average.

Understanding the Public's View – A Catalyst for Driving Improvement:

Results are gathered under themes linked to national (LTP2) shared transport priorities and other important highway and transport related topics, see table. There is further aggregation to provide overall public satisfaction for an authority and also the collective view of all respondents to the survey nationally. Results are provided both un-weighted and weighted. Weighted results can be used to minimise the impact of significant demographic variations and for enhanced comparability between authorities with differing populations and respondent profiles.

Beneath the aggregated results there are multi level opportunities to drill down through the results to identify exceptions and areas for attention. Drill down can be undertaken for all respondents or for categories of respondents (eg, the elderly, non-car users, people in certain locations etc) providing exceptionally diverse, comprehensive and location based information.

Repeatability of the survey will allow authorities to monitor, with some accuracy, the impact of service improvement activity on different aspects and themes as well as on the service overall.

Mapping Results

The ability to link in with other spatial and location based issues is seen as crucial to maximising the opportunities for cross service integration and service improvement and mapping has the potential to provide the most useful representation of many results. This will enable hot spots to be geographically located and overlaid with a myriad of other data. It is likely that some participating authorities would have sought to map their own results and this provides another opportunity to maximise the benefits of the club approach and to offer an exciting extra dimension to the service, whilst delivering consistency and economies of scale.

The SW Regional Improvement and Efficiency Partnership (SW RIEP) are involved in discussion of the mapping idea. The project is promised SW RIEP grant funding support to 'pump prime' the work to enable the survey results to be depicted in a consistent way on a mapping platform for the benefit of all participants. The SW RIEP is enthusiastic about the idea and its potential to drive service improvements both within authorities and regionally. The detailed proposals are being developed and costed by the Benchmarking Club.

Mapping will support place-based understanding of service issues. This enables an authority to show hot spots arising from the survey (eg related to access, congestion) and then to be able to look across the authority boundaries to see where those hot spots are shared with neighbours. The facility will then exist for further overlay, eg, map based health or deprivation data from the NHS or the Office of National Statistics. The potential to make cross service and authority links in order to help maximise the benefits from investment integration and co-ordination is likely to be unprecedented. The approach will also help authority's transport issues and activities to be considered in a regional context which coincides very much with emerging government thinking and investment.
It is intended to provide map based 'sharable' representation of the survey results (to all survey participants) at no extra cost.

Contact for further information

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Headline Aggregation of Results under Service Themes:

	Overall Public Satisfaction
H&T KBI 1	Overall Satisfaction with Highways & Transport (against local importance)
H&T KBI 2	Overall Satisfaction with Highways & Transport (against national importance)
	Accessibility
H&T KBI 3	Ease of Access to Key Services (all people)
H&T KBI 4	Ease of Access to Key Services (people with disabilities)
H&T KBI 5	Ease of Access to Key Services (no car households)
	Public Transport
H&T KBI 6	Overall Satisfaction with Local bus services
H&T KBI 7	Satisfaction with Local Bus Services (BVPI 104)
H&T KBI 8	Satisfaction with Local Public Transport Information (BVPI103)
H&T KBI 9	Overall Satisfaction with Local taxi (or mini-cab) services
H&T KBI 10	Overall Satisfaction with Community Transport, e.g. Dial-a-Ride & volunteer cars
	Walking & Cycling
H&T KBI 11	Overall Satisfaction with Pavements & Footpaths
H&T KBI 12	Satisfaction with specific aspects of Pavements & Footpaths
H&T KBI 13	Overall Satisfaction with Cycle Routes & Facilities
H&T KBI 14	Satisfaction with specific aspects of Cycle Routes & Facilities
H&T KBI 15	Overall Satisfaction with The Local Rights of Way Network
H&T KBI 16	Satisfaction with specific aspects of The Local Rights of Way Network
	Tackling Congestion
H&T KBI 17	Overall Satisfaction with Traffic Levels & Congestion i.e. queues
H&T KBI 18	Satisfaction with Management of Road-works
H&T KBI 19	Satisfaction with Traffic Management
	Road Safety
H&T KBI 20	Overall Satisfaction with Road Safety Locally
H&T KBI 21	Satisfaction with Road Safety Environment
H&T KBI 22	Satisfaction with Road Safety Education
	Highway Maintenance & Enforcement
H&T KBI 23	Overall Satisfaction with the Condition of Highways i.e. roads & pavements
H&T KBI 24	Satisfaction with Highway Maintenance
H&T KBI 25	Overall Satisfaction with Street lighting
H&T KBI 26	Highway Enforcement / Obstructions

Case Study **Service Improvement** **Westminster City Council**

Executive Summary

A Transport Asset Management Plan (TAMP) is a long term plan that describes how an organisation intends to manage its transport infrastructure asset base in order to deliver the agreed levels of service and performance targets in the most cost effective way.

The Westminster City Council TAMP identifies performance targets from 2007/08 to 2011/12 inclusive and the predicted level of financial investment necessary to deliver the agreed levels of service and performance targets from 2008/09 to 2012/13 inclusive.

Westminster's vision is become the best place in the UK for quality of life and strong communities and helping to make London the world's greatest global city. This requires excellence, not just in comparative terms, but in absolute terms. Continuous improvement and service improvement of the transport service are encapsulated in the TAMP performance targets.

The TAMP identifies continuous improvement targets for each year from 2008/09 to 2011/12 inclusive. Westminster's definition of continuous improvement is a positive increase in the average annual weighted percentage change of performance indicator scores, where the relevant indicators are either nationally approved or commonly used, such that they are suitable for benchmarking purposes with other authorities.

The TAMP also identifies service improvement targets over the same period. Westminster's definition of service improvement is an annual improvement in the level of service of at least one transport objective. A service improvement would not be achieved, regardless of the number of levels of service improvements, if there was a reduction in the level of service of any transport objective.

The TAMP targets are for service improvements in 2008/09, 2009/10 and 2010/11, but not for 2011/12. As efficiencies and improvements become increasingly more difficult to achieve, evidenced by the reducing continuous improvement targets, it will become even more difficult to achieve service improvement. For 2011/12, this is highlighted by the fact that, even though there is a small continuous improvement target, there is no corresponding service improvement target.

Background and Context

The Efficiency Toolkit for local Highways and Transportation adopts the principle of selecting indicators across a broad spectrum of the highway service as the most appropriate way of seeking a high level of confidence in the assessment of quality for the overall local transport (highways) service.

Issues Addressed

In the development of its Transport Asset Management Plan (TAMP), Westminster City Council identified 10 core transport objectives to meet its vision of the transportation service being *'a world leader in streetscape innovation, development and management, meeting the highest standards of partnership and service'*. Supporting each of these objectives are several appropriate performance measures sufficient to obtain a broad outlook of the quality of the service.

In order to claim future efficiency gains, quality cross checks will still be required to ensure that quality has not been compromised in the pursuit of efficiencies. It is Westminster's view that the performance measures and targets in the TAMP are appropriate and applicable to fulfil this role.

In regard to securing value for money, it is Westminster's view that this can be achieved through continuous improvement as defined by improvements in quality without increases in expenditure (i.e. non-cashable efficiency gains as defined in CSR 04).

Indicators to be adopted for this purpose should be either nationally approved or commonly used, as they should be capable of being benchmarked with other authorities, to assist in the pursuit of continuous improvement through process benchmarking. In this regard, one of the Lyons Inquiry recommendations was that councils should work together to support service improvement through peer review, challenge and benchmarking.

Measurement and Valuation

Westminster has selected a total of 31 performance indicators (out of a total of 72 indicators) from its TAMP as being suitable for these purposes, and these have been recommended by London Technical Advisors Group (LoTAG) as being appropriate for benchmarking by London Boroughs.

In the TAMP, all the performance measures have current scores and annual targets up to 2011/12 inclusive. These targets are based upon the requirements of the Council's Best Value Performance Plan, the Departmental Service Plan and other documented Council policies. Some of the measures require improvements to be shown over time, whereas others only require current performance to be maintained.

From these targets, the annual percentage performance improvement for the service has been calculated, account having been taken of local weighting priorities, and this is detailed in the table below. In summary, the targeted average annual percentage improvement over the TAMP period is:

- 2008/09 1.22%
- 2009/10 0.99%
- 2010/11 0.72%
- 2011/12 0.56%.

Using this methodology, continuous improvement can now be assessed on an annual basis.

Of the 72 performance indicators in the TAMP, 39 are currently used for measuring levels of service. This comprises the 31 indicators used for benchmarking and the continuous improvement assessment plus a further 8 indicators specifically developed for the Westminster TAMP.

Levels of service bandings have been determined for each of these indicators, using the four categories that align with the Comprehensive Performance Assessment (CPA) ratings of excellent, good, fair and poor. All these indicators can then be ascribed specific levels of service, both for the base year and the annual targets thereafter.

Adopting scores of 1, 2, 3 and 4 for poor, fair, good and excellent respectively, current and target levels of service can be ascertained for each of the 10 transport objectives by averaging the scores of all the indicators attached to the objective. These scores can then be transcribed back into poor, fair, good and excellent as the level of service of that particular objective.

Similarly, the overall level of service for the whole service can then be calculated using a weighted average of the levels of service of the individual objectives.

It is Westminster's view that an improvement in the level of service of an individual transport objective represents a service improvement. This therefore differs to continuous improvement in that the performance needs to improve to the extent of reaching the next level of service rating.

The targeted service improvement over the lifetime of the TAMP is shown in the following table:

Transport Objective	Transport Objective Weighting	← Backward Analysis		Forward Targets →			
		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Accessibility and inclusion	5%	Fair	Good	Good	Good	Good	Good
		Improving					
Customer service	10%	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
		Stable					
Environment	0%	N/A	N/A	TBC	TBC	TBC	TBC
		N/A					
Journey time reliability	5%	Fair	Good	Good	Good	Good	Good
		Improving					
Safety	30%	Fair	Good	Good	Good	Good	Good
		Improving					
Streetscape	25%	Good	Good	Good	Good	Good	Good
		Stable					
Sustainability	5%	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
		Stable					
Sustainable transport	5%	Poor	Fair	Good	Good	Excellent	Excellent
		Improving					
Value for Money	10%	N/A	Good	Good	Excellent	Excellent	Excellent
		N/A					
Workspace management	5%	N/A	Good	Good	Good	Good	Good
		N/A					
Overall Transport Service		Good	Good	Good	Good	Good	Good

This indicates that service improvement has been achieved in 2007/08 and is targeted in 2008/09, 2009/10 and 2010/11. There is no service improvement target for 2011/12, notwithstanding that there is a continuous improvement target in 2011/12 of 0.56%.

Contact for further information

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Case Study **Asset Management** **Westminster City Council**

Executive Summary

A Transport Asset Management Plan (TAMP) is a long term plan that describes how an organisation intends to manage its transport infrastructure asset base in order to deliver the agreed levels of service and performance targets in the most cost effective way.

To formulate long term strategies for managing asset types, first generation lifecycle plans for carriageways, footways, structures and lighting have been developed.

These will shortly be supported and supplemented by investment models for carriageways and footways, which are in the process of development. These models will support a "what if" analysis of funding levels and maintenance strategies, and will be used to assess the impact of a wide range of funding levels on asset performance and maintenance backlog, and to justify the funding required to deliver the agreed levels of service.

The resultant outcome should lead to a strategy for minimising whole life costs and consequently identifying and evaluating cash-releasing efficiency savings within the 2007 Comprehensive Spending Review (CSR 07) period.

Background and Context

The CIPFA report on Local Authority Transport Infrastructure Assets, June 2008, concluded that comprehensive transport asset management has the potential to deliver significant value for money benefits and improvements in the services delivered to users. An asset management based approach should help authorities to take better informed decisions about spending priorities, by demonstrating the long term consequences of particular levels of investment, and help them to maximise the output that can be achieved from the chosen level of expenditure.

Westminster City Council has set levels of service for it's transportation service, which match and are achievable within the funding levels approved by the authority. The Framework for Highway Asset Management published by CSS/TAG describes levels of service as a statement of the performance of the asset in terms that the customer can understand. Levels of service typically cover condition, availability, capacity, amenity, safety, environmental impact and social equity.

Once levels of service have been set, lifecycle plans of the transport assets can be developed. A lifecycle plan is a long term strategy for managing an asset type, i.e. carriageways, footways, bridges and other highway structures, public lighting, street furniture, etc., to deliver the required levels of service whilst minimising whole life costs. They are a core component of asset management planning, as they identify options for future performance and should result in optimal solutions for minimising whole life costs.

Lifecycle plans should take account of levels of service, anticipated deterioration mechanisms and rates of deterioration, component service lives, maintenance techniques and costs, influence of maintenance on future deterioration rates and risks to safety and service loss.
Having identified work options and costs within a lifecycle plan, an appraisal should then be undertaken to identify the optimal solution. Should a different strategy to that currently in operation, be recommended, it may then possible to identify and evaluate efficiencies which are cash releasing.

Prospective Efficiencies

The Westminster lifecycle plans for carriageways and footways comprise the following elements:

- Inspection and testing
- Routine maintenance
- Reactive maintenance
- Programmed maintenance
- Programmed improvements.

Over the lifetime of the TAMP, it is proposed to seek efficiencies through the appraisal of varying levels of capital investment with the consequential impact on maintenance activities, together with improvements in the risk management strategy of highway defects by reduction in the overall numbers of defects to be remedied and increasing the percentage of category 2 defects compared to category 1 defects.

It is predicted that such an investment strategy, taking account of better management strategies, will lead to minimising whole life costs, thereby resulting in cash releasing efficiencies. At this stage, however, it is not possible to quantify such efficiencies.

Issues Addressed

The issues currently being addressed within the carriageway and footway lifecycle plans of the TAMP are:

- Forward Investment strategy
- Risk management strategy for highway defects

Measurement and Valuation

In respect of the investment strategy, forecasting models are under development that take into consideration predicted asset deterioration for carriageways and footways. With the absence of historical data and lack of recommended literary sources, the first generation models are being based on the wealth of expert engineer knowledge on Westminster's highway network.

It will be an iterative process, and the models will incorporate varying levels of capital investment, together with projected revenue spends over each year of the TAMP. Maintenance defects will be split into category 1 and 2 and identified by type (i.e. wear & tear, statutory undertakers, tree roots, vehicle overruns and street cleansing activities). Programmed maintenance funding will affect levels of wear & tear defects and strengthening programme funding will affect levels of vehicle overrun defects and levels of street cleansing activity defects.

Data on these types of defect is now being collected, and future generation models will be able to encapsulate this information and become more statistically accurate.

Contact for further information

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Case Study **Procurement** **Westminster City Council**

Background

The City Council was one of the earliest authorities to outsource highways and transportation services, under VCT, starting in 1992. Between 1992 and 2001 various contract were let leading to a point whereby the City Council's Transportation Services were being delivered through a relatively large number of consultants and contractors.

In 2001, with over ten years experience of using outsourced consultants and contractors, it was an opportune time for the Council to consider whether this format of contracts was delivering effective services for the community. It was therefore decided to undertake a 'Best Value Review' of Transportation Programme Delivery prior to commencing any new tendering. The outcome of the best value review focused particularly on how services should be packaged and delivered in the future.

A significant element of the review was, therefore, a detailed examination of the options for different contractual arrangements. It was also highly important, assuming some continuing form of outsourced provision, that under any new arrangements management information systems are developed to ensure unambiguous control of the programmes and the considerable financial resources.

Contract Procurement

The procurement strategy for these Contracts was developed following completion of the Best Value Review in October 2002.

A 'Negotiated Route' was determined as the appropriate procurement route for these services. The use of this route gave the opportunity to explore different service delivery solutions.

The tender process comprised:

- A preliminary qualification stage
- Invitation to Submit Outline Proposals (ISOP)
- Invitation to Negotiate (ITN) comprising the initial evaluation of priced bids and the outcomes of the two phases of negotiation
- Invitation to submit a Best and Final Offer (BAFO)

Service Levels were agreed through close working with the relevant Cabinet Members and a joint panel of Members from the City Council's Transportation and Infrastructure and City Management Overview and Scrutiny Committees.

The Contracts were awarded, for a period of 5 years commencing on 1 October 2004, by Cabinet on 19th July 2004 via a Joint Overview and Scrutiny Committee on 13th July 2004. Provision was made within the main contract agreement to enable an extension to the contract period to be granted by a period up to a maximum of an additional 10 years dependant upon performance and continuous achievement in value for money terms.

The contract was awarded significantly below existing budget in 2004/05, see table below:

	Budget (£'000)	**Cost** (£'000)	**Variance** (£'000)
Bridges & Structures			
Revenue	1,275	1,284	9
Capital	775	677	-98
Transportation Projects			
Revenue	718	812	94
Capital	6,360	5,315	-1,045
Total	**9,128**	**8,088**	**-1,040**

The overall saving of £1m was built into future budgets. However, the most significant saving was in respect of Transportation Projects funded by capital expenditure where a 16.5% reduction in cost was achieved.

The contract does not have a specific 'Contract Value' as it is a 'call off' contract and the value of work is dependent upon need and available finance.

Since the start of the contract capital expenditure has grown and is currently in excess of £15m per year. With this value of capital expenditure an annual efficiency saving of £2.95m is being achieved. The discount is built into future budget provision for individual projects.

In addition to the cost savings a range of service enhancements were included in the service specifications.

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Continuous improvement - Financial

The contract has worked well and there have been no significant deficiencies in the way that the service requirements have been specified.

The only issue that did not work well was the use of a 'Target Performance Scheme' which was included within the contract to try and incentivise the service provider in respect of 'Large Projects'. A joint review was therefore undertaken to ascertain whether there was a more cost effective way to verify the extent of works actually carried out for all 'Large Projects' and to determine the most appropriate method of payment.

It was agreed that all 'Large Projects' would be 're-measured' upon their completion and their value determined using the rates and prices that are already included in the contract. However, an agreed discount percentage would be applied to the valuation thus providing the City Council with a pre-determined 'saving'. The extent of discount varies depending upon the value of each individual Project. The following table sets out the scale of discount:

Value of Project	Discount
£50k** – £99k	1.0%
£100k – £249k	1.5%
£250k – £349k	2.0%
£350k – £499k	3.0 %
£500k – £999k	4.0%
£1m – £1,999k	5.0%
£2m and over	6.0%

(Note: **The £50k Threshold is the nominal point at which a project is determined as 'Large'. This threshold is indexed in line with inflation)

This provides the City Council with certainty 'up-front' particularly in respect of future budgeting and control of expenditure and is far less onerous in monitoring terms.

As an example the Westbourne Green Redevelopment, Roads, Footpaths & Lighting Project – Estimated to cost £1.08m benefits from a 5% discount of £54,000.

Continuous improvement – Service enhancement

The City Council's service provider is committed to continuous improvement and is constantly looking at ways of improving its service. This process forms part of a quality management system whereby new ideas and lessons learnt from previous projects can be clearly captured and new ideas developed.

Since the commencement of the new contracts significant developments to the procedures and methods of working have been carried out. Some of these developments include:

- Improved and enhanced communication
- Improved financial management
- Improved flexibility of and access to resources
- Efficiency and quality of work programmes
- Value Engineering review process
- Sustainability & Maintainability Audits
- Re-cycling

A range of performance indicators are set within the contract to monitor various aspect of the service delivered. Performance Targets were set at the start of the contract and these have been exceeded continuously and have improved on a year by year basis.

Contact for further information

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Case Study **Implementation of Risk Based Inspections of the Highway**

London Borough of Hammersmith and Fulham

Executive Summary

The production of a Highway Maintenance Management Plan is not a statutory requirement. However it follows national good practice in detailing policy, strategy and operations of the highway maintenance service in a single comprehensive document. The Plan is an integral element of the Asset Management Plan, which is likely to become a statutory document to be produced by all local highway authorities in England in the near future.

The Hammersmith and Fulham Highway Maintenance Management Plan is the comprehensive highway maintenance document linking corporate policies to the highways maintenance strategy leading to maintenance policies, standards and service delivery mechanisms. It is founded on the principles of obtaining value for money and continuous improvement and conforms to the recommendations set out in the national Code of Practice for Highway Maintenance Management (Well maintained Highways) published in July 2005. It is based on a risk management strategy and is a fundamental component of an Asset Management Plan.

The document is divided into and covers the following sections: the Policy Framework, Service Delivery, Maintenance Strategy and Hierarchy, Inspection, Assessment and Recording, Condition Standards, Programming and Priorities, Sustainable Highway Maintenance, Financial Management, Performance Management

Risk Management

A fundamental difference in the 2001 Code of Practice for Maintenance Management from the previous 1989 Code of Good Practice for Highway Maintenance is that risk assessment should now be the vehicle for determining maintenance action rather than the old prescriptive method of investigatory levels, warning levels and intervention levels. This has been continued in the 2005 revision of the Code of Practice.
Risk management is the process of identifying risks to the achievement of an authority's strategic and operational objectives, evaluating their potential consequences and determining and implementing the most effective way of controlling and monitoring them.
Risk management operates at three different levels:

- strategic
- tactical (Asset Management Plan)
- operational (Highway Maintenance Management Plan).

The highest profile risks affecting the highway maintenance service are those relating to the safety of the network and accident, injury or health risks to users including employees.
The risk management process comprises the following stages:

- to identify risk
- to analyse risk – using available data to provide information to assess the likelihood of risk arising with consequences or impact it may have
- the profile risk – according to likelihood and severity
- to prioritise action – based on the authority's appetite for or tolerance to the risk and the availability of limited resources
- to determine action – should the risk be avoided, eliminated, reduced, transferred or accepted
- to monitor and review.

Highway authorities have an absolute duty to maintain highways pursuant to S41 of the Highways Act 1980 although a “special defence” exists under S58 of the Act. This allows authorities to successfully defend actions arising from accidents that occurred due to the condition of the highway where the authority can demonstrate it acted “reasonably”. Clearly risk management is an integral element of being able to demonstrate reasonableness.

Implementation (HMMP)

Following the recommendations of the Code of Practice the London Borough of Hammersmith and Fulham started preparation of its Highway Maintenance Management Plan in autumn 2005. The LoTAG Framework Highway Maintenance Management Plan produced by the City of Westminster and sponsored by Zurich Municipal was used as the guidance document

A series of workshops involving management, engineers, inspectors and insurance officers were held and the key components such as items for inspection, investigatory levels and establishment of the risk register were held over a period of around 9 months. The information agreed in the workshops remains a key component of the Plan and knowledge officers imparted and gained assisted in the successful implementation of the plan on completion.

During the same time the Boroughs hierarchy was completely reassessed and defined in accordance with the Code of Practice. Inspection frequency of each individual street is determined by its hierarchy and forms part of any defence of a claim against the authority. Due to these implications the hierarchy was discussed at Scrutiny Committee, in some instances amended following discussion and subsequently approved by Cabinet Members along with the completed Plan.

The borough formally scrutinised and subsequently adopted the plan and in May 2007. Following approval of the Plan the borough officially adopted the risk management approach to assessing highway defects. Inspectors were fully trained and efforts were made, successfully, to ensure each highway inspector assesses similar defects in a consistent manner.

A major positive outcome and area of saving following implementation of the risk management approach was that many defects identified, particularly on three and six month inspections, were instructed for repair within 28 days rather than using the old prescriptive methods which would have required all safety repairs to be completed within 24 hours.

Another positive outcome that came more from the closer working and increased training rather than a direct result of risk management was that the cost implications of actions were more clearly visible to the highway inspectors. For example, less weekend work was instructed, less “signing and guarding” and more instructions for permanent repair were noticed and real “ownership” of the network became apparent.
The borough estimates that the combined actual saving amounts to 10-15% of the annual revenue budget. This saving has been directed into the capital works programme, which in turn has a positive impact as a result of less general maintenance requirement.

The borough is aware that a number of other Highway Authorities have implemented the risk management approach but is not aware of any case where this approach has been tested by the courts.

Contact for further information

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