



4.5 MAINTAINING THE HIGHWAY NETWORK

We will:

- plan and deliver an attractive and environmentally friendly city;
- strengthen and diversify the economy;
- provide an effective, efficient and accessible Council for Peterborough.

By committing to:

- make the best use of existing infrastructure;
- support the proposals to develop and enhance the City Centre;
- supporting and influencing growth through travel solutions.

This section details Peterborough City Council's maintenance strategy response to the corporate priority 'To provide an effective, efficient and accessible council for Peterborough' and demonstrates how an efficiently managed highway network can complement other local priorities such as safety and congestion.

During the life of the LTP1, the Peterborough highway network generally continued to deteriorate against a background of diminishing capital investment. However, there were some successes including:

- substantial improvement to the traffic signal stock and reductions in renewal periods;
- successful exceptional maintenance bids for Town Rail Bridge and Parkway parapet structural repairs;
- the condition of the Principal Road network was kept constant at approximately 8.4% of the network with no residual life (deflectograph surveys).

The challenge that the Council faces for the LTP2 is to arrest the network deterioration by making best use of existing funding and, where feasible, seeking alternative sources of funding to supplement maintenance regimes.

The Council (like many other local authorities in England) is undergoing a transient stage in developing a maintenance strategy. In keeping with the Government guidance, the Council is developing a 'Transport Asset Management Plan' to inform all future maintenance

strategies. In recognition of the resource investment and timescale needed to produce such an intense and extensive plan, interim strategies have been developed for the LTP2.

In addition to outlining the Council's approach to asset management, this section contains interim maintenance strategies for:

- highways;
- traffic signals and related technology;
- bridges;
- street lighting.

4.5.1 Transport Asset Management Plan

Key Actions	
	All significant highway data to be captured by 2009
	Full inventory and valuation will be completed during 2006/07 to inform the first Peterborough <i>Transport Asset Management Plan</i>

The highway network within Peterborough is essential to support the needs of the whole of the community. Therefore, the network can be considered to be the city's most important physical asset. It is essential that this asset is properly maintained to ensure that its value in serving the community is not allowed to diminish and, where possible, enhanced.

A well-maintained highway network which is safe and efficient is essential to meeting the corporate priorities for Peterborough. To that end, the Council has developed a 'Highway Asset Management Plan' that will form a key component of Peterborough's overall *Transport Asset Management Plan*.

The current *Highway Asset Management Plan* will broaden so as to consider the following:

- the needs and expectations of the community in relation to the network;
- the service standards that are required to meet the above needs and expectations;
- the resources that will be available in order to meet these needs and expectations;

- the existing condition of the highway network;
- the development of systems to maintain the highway network asset in a way that maintains or enhances its value to the community.

The asset management process will focus on the following:

Strategic Planning

This will include looking at objectives within the 10 to 30-year timescale. Strategic planning represents the translation of the community's needs and expectations into long-term strategies. It will reflect legal, environmental, social and economic factors in determining strategic targets required to determine service levels.

Tactical Planning

The *Highway Asset Management Plan* is essentially a 'tactical plan' aimed at achieving the strategic objectives of the Council relating to the highway network. It will consider the development sub-plans for each area of the maintenance delivery service. It will look at objectives within the three to ten year period and the development of medium-term strategies to achieve them.

Operational Planning

There will also be 'operational plans', short-term (one to three year period) detailed action plans aimed at meeting the objectives of the tactical plan. Each operational plan will provide a firm direction for a 12-month period with an indicative plan for a further two-year period. It is intended that such plans are practical and not visionary.

Benefits

The benefits to be gained through the adoption and operation of an effective asset management plan include:

- good management of the Council's most valuable asset;
- well informed decisions will be taken leading to the most cost-effective methods being employed;
- optimised decision making leading to a more efficient delivery of maintenance service;
- whole-life cost planning will lead to a better long-term solutions;
- better risk and financial management;
- clear links to strategic aims of the Council.

Progress on the Peterborough Transport Asset Management Plan

The Council will develop a *Transport Asset Management Plan* over the life of the LTP2. From an initial assessment of the need to move to asset management, it became clear that the development of an effective asset management plan would take several years, especially in the discipline of data capture. Resources were allocated to data capture over the life of the LTP1 (primarily in the

forms of a sign audit and a street lighting audit) but there is still much work to be done. However, it is intended that the capture of most significant highway features will be achieved by 2009.

During 2005/06, a sample inventory and valuation of the highway network was undertaken and the data obtained utilised to inform the development of the *Maintaining the Highway Network* strategy. A full inventory and valuation will be completed during 2006/07 to inform the first Peterborough *Transport Asset Management Plan*.

Transport Asset Management Plan in the Wider Context

As the city embarks on a second period of large-scale growth and inward investment in infrastructure, it is important that asset management is pro-active in shaping future development. The Council will build on its experience managing the considerable highway network introduced by the rapid 'New Town' expansion during the late 1970s and early 1980s to inform future infrastructure provision and maintenance regimes.

The Peterborough *Transport Asset Management Plan* will support the corporate provision of detailed information on the assets held by the whole authority. This will enable better definition of longer-term corporate need and continual challenge to asset holding/use.

The timescale for completion of the first Peterborough *Transport Asset Management Plan* has enabled the LTP2 objectives (and therefore national, regional and corporate objectives) to be integral to developing a highway network maintenance strategy. The contribution *Maintaining the Highway Network* will make to wider objectives is illustrated in the casual chain in Annex 4.

4.5.2 Highway Maintenance

Key Actions	
	Develop a 'pavement management system' to inform maintenance decisions
	Develop a 'route maintenance management system', informed by a comprehensive safety inspection regime
	Investigate prudential borrowing and PFI as the means of funding the arrest of highway deterioration
	Key performance indicators introduced for term maintenance

The Council, in its role as the local highway authority, has a legal duty under the *Highways Act 1980* to ensure that the highway network is safely maintained. However, in addition to meeting its legal duty, there is a direct link between the maintenance of the highway network and its

ability to achieve the corporate priorities of the Council and therefore the LTP2 objectives.

The prime objective of network maintenance must be to ensure a safe network for all highway users. However, other benefits are achievable through efficient highway maintenance: a reduction in the delays experienced by highway users; improved accessibility for vulnerable highway users; and the potential for an increase in the use of more sustainable transport modes.

As a result of Peterborough's New Town status and subsequent rapid development during the late 1970s and 1980s, a large proportion of the highway network is reaching the point where its replacement is becoming imminent. Since the rapid expansion of the highway network (i.e. serving the development associated with this New Town status) occurred over a short period of time, the network's 'residual life' is also coming to an end over a similarly short period. Dealing with this problem will present a difficult challenge throughout the period of the LTP2 and beyond. It is therefore essential that the resources made available for highway maintenance are used in an optimised way to ensure maximum benefit to all within the Peterborough community.

The *Transport Asset Management Plan* must ensure that all resources are used as efficiently as possible and, equally, must build on the knowledge gleaned from maintaining the New Town infrastructure to better inform the development of future major schemes and, thereby, strongly contribute to the sustainable growth of the city. For example, poorly specified parapet bridge anchorages in the 1970s has necessitated remedial works costing over £2m during the LTP1. The Council can learn from this experience and anticipate future problems when reviewing infrastructure specifications.

A brief breakdown of the highway network within the Peterborough area is in Table 21.

Peterborough's Principal Road network includes the Parkway network. This is a network of high standard dual carriageways constructed during the New Town expansion period and is strategically essential for Peterborough. The Parkway network is heavily used both by long distance and local traffic, thereby taking vehicle movements away from other less suitable local roads. The *City Centre Framework Transport Strategy* forecasts significant traffic growth for the Parkway network, particularly for the A1139. It is vital for the economic growth of Peterborough and its sub-region that the network is effectively maintained.

Trunk Roads

The A47 trunk road forms part of Peterborough's Parkway network and, in addition to being a strategic link, provides for local short distance trips. The Highways Agency is responsible for maintaining this trunk road and, during the LTP1, the Council enjoyed a good relationship with this

organisation. This included high-level strategic liaison as well as frequent operational meetings with route managers. This proved invaluable in the de-trunking of sections of the A43 and A47, co-ordination of road works, and the development of major schemes. (e.g. A1073 Spalding to Eye Highway Improvement, A47 Thorney Bypass)

Table 21: Peterborough's Highway Network

Type of Road	Total km
Non-core detrunked	6.7
of which built-up	0.0
Principal Motorways	0.0
Principal A Roads	70.9
of which built-up	22.3
B Roads	49.8
of which built-up	29.2
C Roads	156.3
of which built-up	49.6
Unclassified Roads	540.5
of which built-up (inc housing estate roads)	430.9
Back lanes	0.8
Motorways	0.0
Total	825.0

The Council liaised with the Highways Agency in the development of the LTP2 and will continue to work in partnership in delivering the transport objectives.

Road Network Hierarchy

The Council is in the process of reassessing the hierarchy for the highway network - this is discussed in detail under *Tackling Congestion*. The results of this reassessment will be used to inform many aspects of service planning and delivery including the *Transport Asset Management Plan*. It is anticipated that the reassessment will also lead to a review of the current road classifications within the area. The reassessment of the network hierarchy will be completed by the end of 2006.

Highway Network Management Plan

The Council's Highway Network Management Plan is to be reviewed on an annual basis. This will be developed along the lines set out earlier in this section to form the operational plan element within the *Transport Asset Management Plan*. The *Highway Network Management Plan* includes a complete description on how the highway network will be assessed and what action will be taken in terms of maintenance and regulation. It is intended to be a reference and guide for all involved in the maintenance

of the highway network to ensure that the network is maintained in a consistent and efficient manner.

Pavement Management

If correct decisions are to be taken with regards to the maintenance of the highway network, it is essential that a reliable representation of that network is available. The Council has access to a 'pavement management system' that provides this necessary resource.

Peterborough's *Pavement Management System* is able to process the data generated from several types of network survey including deflectograph, Scrim, course visual inspection, detailed visual inspection and Tracs-type survey, and will also incorporate Scanner when required.

When processed, the results of these surveys provide a valuable tool in taking appropriate decisions as to the maintenance needs of the network. Projections of network condition can also be made to assist in the planning for future needs.

This *Pavement Management System* also acts as a record of planned maintenance schemes and the effects that these works have on the condition of the overall network.

The *Pavement Management System* will form a fundamental part of the *Transport Asset Management Plan* in providing the necessary information required to make effective decisions relating to the maintenance of the highway network.

Noise

The *European Community directive 2002/49/EC* seeks to limit people's exposure to environmental noise and identifies the requirement for noise mapping in built-up areas. The directive specifically refers to transport as a contributor to 'unwanted or harmful outdoor sound'. For some time now, the Council has recognised that high-speed traffic can make a significant contribution to high ambient noise. Formerly, the Council had a policy of using only low-noise surfacing (primarily stone mastic asphalt) for maintenance and new construction on the entire highway network. However, recent national and international research has called into question the early skid resistance (i.e. 'polished stone value') of stone mastic asphalt. Until this issue is resolved by the DfT, the Council has decided to only use low-noise surfacing on high trafficked, high speed roads and to grit the surface to induce early-life skid resistance.

Safety Inspections

The purpose of a safety inspection is to ensure, as reasonably as possible, the safety of all highway users. Such inspections also form an essential part of a highway authority's defence (under Section 58 of the

Highways Act, 1980) against claims relating to accidents on the highway network.

All streets for which the Council has a responsibility or maintenance are identified on Peterborough's 'Routine Maintenance Management System'. Streets are inspected at a frequency related to their road hierarchy status with a record being kept of the inspection, the defects found and any remedial action taken. The *Routine Maintenance Management System* provides a valuable record of the nature and scale of routine maintenance works being undertaken on the network which can inform the programming of planned works.

The consistency of inspections will be achieved through the guidance contained within the *Highway Network Management Plan*, combined with further training.

Procurement

The Council procures its services and works in several ways. The procurement method that is chosen depends on the particular nature of the work and how best value may be obtained for the Council. Typically, this will be either through a specific contract for a project or, where appropriate, the use of consortium contracts (such as those arranged through the Eastern Shires Purchasing Organisation) or combining with neighbouring highway authorities in a contract. All of these methods have been used (e.g. for surface dressing, retread works and winter forecasting services) and will continue to be used where appropriate by the Council.

A new highways term maintenance contract came into effect during 2005. The format of this contract is significantly different from the existing contract in that it incorporates partnering between the contractor and Council. The intent is for this contract to last for a ten-year period allowing for the adoption of improved recycling methods that are not viable over shorter term contracts. Performance in this respect will be measured via agreed key performance indicators. As this contract will include programmed works, there is significantly greater scope for recycling materials generated by road works than under current contractual arrangements.

Best Practice

The Council actively participates in regional and national best value working such as with the East of England Directors of Environment and Transport Best Value Group. Within this group, comparisons of practices and performances are made and, where appropriate, local changes to policies and procedures are made.

The Council, in carrying out its highway network management responsibilities, is also currently reviewing the recommendations contained within the document '*Delivering Best Value in Highway Maintenance - Code of Practice for Maintenance Management*'.

4.5.3 Traffic Signal Maintenance

Key Actions

Remote monitoring to be extended to pedestrian crossings

Traffic signals are a vital part of the local transport network. They are vital to the efficient operation of the road network and are installed at a number of locations to improve safety, to maximise junction efficiency by controlling conflicting flows of traffic, to assist vulnerable road users and to provide bus priority on the city's bus corridors. The installation of new signals often has considerable local benefits. However, each set installed does increase the revenue burden on the Council. Peterborough has a considerable stock of traffic signals comprising of:

- 39 signalised traffic junctions (including 22 with pedestrian facilities and 11 controlling junctions on existing bus corridors);
- 34 pelican crossings (signal controlled pedestrian crossings);
- three toucan crossings (signal controlled cycle and pedestrian crossing).

The Council operates a Siemens remote-fault monitoring system, presently comprising of an in-station and 47 operational outstations. The number of sites on the remote-monitoring system increased since the commencement of the LTP1 from 8 to 47. This represents a considerable improvement which is still ongoing. This system has enabled the Council to reduce the 'down time' when traffic signal equipment is faulty or completely failed. This has major benefits in terms of road safety and congestion. An existing policy of installing outstation monitoring units to all new junction installations is to be extended to pelican, toucan and puffin crossings. Developers installing signal equipment will be required to provide and install this equipment. The contracts to procure traffic signal maintenance are under review - currently, urgent faults are required to be rectified within two hours at priority sites and four hours at all other locations. Lamp failures are replaced within one hour for red lamps and two hours for all other failures. The Council operates a 'bulk change' policy of all lamps twice a year to reduce the number of individual failures.

4.5.4 Bridge Maintenance

Key Actions

Complete structural maintenance program on the Principal Road network

Produce a bridge asset management plan by 2007

Peterborough Network of Structures

Peterborough lies on the edge of the Fens. It is split in quadrants, east-west by the East Coast Main Line and north-south by the River Nene. The east of the city lies in the Fens, which is at and below sea level, hence the existence of an extensive network of drainage dykes to facilitate the use of high-grade agricultural land. Historically, this has resulted in the construction of a large number of crossings to ensure communities can communicate and businesses, particularly agriculture, can prosper. This is evidenced in the extensive bridge and highway structure stock, which can be summarised in Table 22.

Table 22: Bridges and Highway Structures in Peterborough

Structures	Total	Owned by City Council
Bridges	143	138
Rail bridges	15	5
Pedestrian Subways	42	42
Footbridges	43	40
Underpasses	5	5
Retaining Walls	5	5
Culverts	148	109
Total	400	344

Bridge Stock Condition

All of the bridges in the 40 tonne assessment programme have now been assessed. Of the 99 bridges included in the assessment programme, 21 were identified as requiring strengthening, with works to one bridge having been completed during the LTP1.

Most of the major bridges are on the Principal Road network and were constructed by the Peterborough Development Corporation in the mid-1970s. Of the 43 such bridges and structures, 18 were originally identified as having major structural maintenance problems resulting from chloride attack. Approximately 80% of the works required to these bridges has been completed. The remaining 20% will be completed within the life of the LTP2. In addition, works to a further 10 structures have been identified.

Collection of detailed data on proposed County Surveyor Society bridge condition indicators has commenced and will be completed to inform the full LTP2 submission. This data will be used to help produce the bridge section of the *Transport Asset Management Plan* which will include implementing the *Code of Practice for Maintenance of Highway Structures*, published in summer 2005.

The structures stock represents a considerable capital asset. An asset replacement scenario based on 120 years average asset life is shown in Table 23.

Bridge Strengthening Strategy

The Government-funded programme of bridge assessments has now been concluded. 21 bridges were identified as requiring strengthening to bring them up to the required standards. The strengthening programme was prioritised as follows:

- bridges on the Primary Route network;
- bridges on Principal Roads;
- bridges on A-roads;
- bridges on B-roads;
- bridges on C-roads;
- bridges on Unclassified Roads;
- private bridges on the network.

The relative importance of those bridges and structures failing their assessments was reviewed using the bridge classification system and the Council's 'Transport User Hierarchy'. From this, an evaluation of the action required was identified as follows:

- where a bridge is required to meet strategic objectives (e.g. required by HGVs for business to prosper), it will be strengthened;
- if assessed as not of strategic value, a weight limit will be imposed. A change of use to meet other LTP objectives could then be considered. Any such change would be subject to consultation (i.e.

with bus operators, freight operators and local businesses).

In addition to the bridges which require strengthening to increase the load-carrying capacity, there is a significant number which are identified as having substandard parapets. The exact numbers are not known at this stage and a programme of review and prioritisation for strengthening is planned in the year 2006. Once this is complete, a programme of feasibility studies and works will be implemented based on priority determined in accordance with the hierarchy outlined above.

Structural Maintenance Strategy

To direct resources in the most efficient manner, a strategy to direct bridge and structure maintenance has been developed. This will remain in place until such time that a full *Highway Asset Management Plan* is completed. Using the road hierarchy, bridges and structures have been classified from one to five in terms of (descending) importance. Principal inspections and general inspections are being programmed to be carried out at frequencies to reflect:

- strategic importance of the bridge/structure in relation to usage by pedestrians, cyclists, buses, HGVs and cars;
- type of structure.

Current resources prevent the carrying out of principal and general inspections in line with the former Department of the Environment, Transport and Regions' recommendations of two and six years respectively on all bridges. The prioritisation set out in Table 24 will enable this frequency to be achieved on the most important routes.

10% of bridges are in class 1 and 24% of bridges are in class 2.

Table 23: Peterborough Structure Assets

Asset Type	Number Owned by City Council	Average Replacement Cost £	Total Current Cost £	Average Annual Replacement Cost £
Bridges	138	1,200,000	165,600,000	1,380,000
Rail Bridges	5	7,500,000	37,500,000	312,500
Subways	42	750,000	31,500,000	262,500
Footbridges	40	420,000	16,800,000	140,000
Underpasses	5	750,000	3,750,000	31,250
Walls	5	180,000	900,000	7,500
Culverts	109	50,000	5,450,000	45,417
Total	344	10,850,000	£261,500,000	£2,179,167

Maintenance Prioritisation

The inspection regime set out in Table 24 above results in the identification of necessary maintenance work. This is prioritised using the following condition * (star) system:

- 1* Low Priority – no immediate effect on the structure, e.g. parapet painting.
- 2* Medium Priority – may have an effect on the structure, e.g. failed expansion joint.
- 3* High Priority – could cause failure to structure, e.g. material failure, impact damage.

Maintenance is then programmed in accordance with the following matrix.

Importance (Class)	5			
	4			
	3			
	2			
	1			
		1	2	3
	Condition			

Working with Other Bridge Owners

Joint discussions have been held with a number of private bridge owners to ensure that appropriate strengthening and maintenance works are carried out. Oundle Road Bridge (owned by British Rail Properties) but used by a private rail operator Nene Valley Railways is to be brought up to adoptable standard by the owner and then formally adopted and maintained by the City Council.

There are two major rail bridges owned by Railtrack, these being Spittals and Westwood. A joint approach is being adopted for assessment and establishing necessary strengthening works.

Environmental Impact

For both the strengthening and structural maintenance programmes, an environmental assessment of the construction works will be made. Contractors will be selected using a combined quality and price assessment to ensure compliance with the environmental standards being required. Hence, contractors will be selected taking into account their ability to minimise damage to the environment through:

- protecting watercourses;
- dealing sensitively with listed structures;
- dealing sensitively with both the human and natural environment;
- minimising noise and dust;
- managing traffic to minimise delays;
- recycling materials;
- providing safe traffic management.

Table 24: Bridge/Structure Inspection Regime

Class	Inspection Frequency in Years		Description
	General	Principal	
1	2	10	Strategic links needing to be available at all times, substantial diversions if closed for repairs.
2	2	10	Bridges providing strategic links that can be repaired with traffic management or short diversions without causing undue disruption to movement.
3	2	10	Bridges / structures on Principal, other A and B Roads requiring routine maintenance to bearings etc. and steel structures requiring regular painting to ensure durability.
4	2	None	Long life bridges and other structures not requiring routine maintenance to sustain their durability.
5	2	None	Concrete pipe culverts up to 1.5m diameter and other long life structures.



Town Rail Bridge Structural Repairs

4.5.5 Street Light Maintenance

Key Actions

- | | |
|--|--|
| | Continue the column replacement programme |
| | Support casualty and crime reduction |
| | Integrate the street lighting service with geographical information system |

Street lighting of adequate and appropriate brightness and uniformity has many positive benefits within the community as it:

- reduces the number and severity of road traffic casualties;
- reduces the fear and occurrence of crime;
- improves the accessibility to services and social activities;
- aids prosperity by making locations such as the City Centre attractive places to shop.

Increase Asset Life

Following the work of a cross-party working group in 2001, a report was submitted to the Council's Environment Select Panel detailing the backlog of work required to bring the Council's street lighting stock up to a 50-year asset life over the subsequent ten years. The same report also defined the standards of lighting relative to the type and function of the road to be illuminated.

This programme of upgrading and replacing columns will continue until 2011.

The problem is compounded by the rapid New Town expansion of Peterborough that took place in the 1970s. There are therefore a large number of plastic coated steel columns that are deteriorating at an enhanced rate.

Opportunities to accelerate this work, such as the funding received from English Partnerships for improving lighting to the cycleways in Bretton, are utilised where possible.

The Council is compiling a street lighting inventory to enable risk management to be undertaken on the entire stock. This inventory is currently 45% complete.

Street Lighting Private Finance Initiative

The Council welcomed the recent opportunity to pursue the private finance initiative funding opportunity as a means to address its aforementioned backlog in street lighting. The Council engaged the services of Deloitte-Touche in the preparation of a formal Expression of Interest. However, it soon became apparent that the 'affordability gap' would be an issue for the Council, despite Deloitte's assurance that Peterborough was better placed than all other local authorities that it was similarly working with.

This situation would not have been so problematic had the Council's *Planning Guideline* (as worded in the next section of the LTP2) for capital maintenance been

consistent with the levels of such funding experienced prior to 2005/06. On the promise that the *Planning guideline* issue referred to in the next section is duly addressed, the Council will more vigorously pursue the third round of Private Finance Initiative for street lighting funding opportunity that the DfT representatives have indicated will arise in the future.

Reduce Road Traffic Collisions

Street lighting can make a positive contribution to the reduction of road traffic collisions, of which approximately one third occur during the hours of darkness.

The desired enhancement of colour recognition afforded by the use of white light is of particular relevance for the desired prevention of collisions involving pedestrians and cyclists.

Reduce Fear of Crime & Improve Accessibility

The results of the MORI polls undertaken within Peterborough highlight the residents' fear of crime as one of the main issues although this is not supported by the actual crime statistics. It is important to recognise the feeling of security that is generated by appropriate street lighting within residential, social and business environments.

Furthermore, adequate lighting of cycle routes and pedestrian routes, including those to public transport interchanges, is both an encouragement and a reassurance to the users of sustainable modes of travel.

Integrate with Geographical Information System (GIS)

To improve the efficiency of the service, it is proposed to integrate the street lighting database to a new corporate geographical information system (GIS) within the life of the LTP2. This will enable greater access for fault reporting across the Council and support the delivery of the e-government agenda.

Maintaining the Highway Network and Quality of Life Outcomes

Strategy Theme	Quality of Public Spaces	Landscape and Biodiversity	Safety, Security and Crime	Healthy Communities	Sustainable Communities	Noise	Climate Change	Comments
Transport Asset Management Plan	✓✓	✓	✓✓		✓✓	✓✓		The highway network is essential to support the needs of the whole of the community. A well maintained highway network which is safe and efficient has many quality of life benefits.
Highway Maintenance		✓	✓✓		✓✓	✓✓		The Principal Road network, in particular, is important in providing the most sustainable route for heavy volumes of traffic. This removes heavy environmental impact in built up areas. Sympathetic cutting regimes form a part of each sites' road management. The use of low-noise surfacing materials can have a positive impact on ambient noise levels.
Traffic Signal Maintenance	✓		✓✓		✓✓			Traffic signals are a vital part of the local transport network. They are vital to the efficient operation of the road network, improve safety, control flows of traffic, provide bus priority and assist vulnerable road users - all of which have resulting quality of life advantages.
Bridge Maintenance	✓	✓	✓✓		✓✓			For both strengthening and structural maintenance programmes, an environmental assessment for the construction works will be made. Damage to the environment and quality of life will be minimised through protecting watercourses, recycling materials and providing safe traffic management.
Streetlight Maintenance	✓✓		✓✓	✓	✓		✓	Street lighting can make positive contributions to the reduction of road traffic collisions, reduce the fear of crime and improve accessibility; this brings particular benefits in building sustainable and prosperous communities.