Lancashire County Council

Highway Maintenance Plan

2009/10

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SUPPORTING DOCUMENTS (not included in HMP but available on request)

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EXECUTIVE SUMMARY

This Lancashire County Council Highway Maintenance Plan (HMP) provides a comprehensive Code of Practice in the form of guidance and standards for the maintenance and related management of the publicly maintainable highway infrastructure network across the County maintained from the Highway Maintenance Budget (HMB).

Comparison is made with Nationally produced Codes and Guides for Highway Maintenance and any variance with and departure from these documents is identified at Appendices 1 and 2.

This Plan is a fundamental part of the County Council's Transport Asset Management Plan which looks into a wider aspect of infrastructure assets. Together, both Plans form an important part of Lancashire County Council's overall Highway Authority policy "The Lancashire Transport Plan".

The County Council seeks continual review of, and where possible, improvement to its highway maintenance services. Details of recommended and planned actions together with a proposed timescale is set out in the supporting document "Highway Maintenance Strategy and Improvement Plan".

In more recent years the delivery of highway maintenance across Lancashire has gone through significant change and no longer does the County Council have extensive Agency Arrangements with District Councils for the delivery of key elements of its highway maintenance duties. These changes together with current management and service delivery arrangements are set out in Chapter 7.

This HMP will be a useful operational guide to engineers and technicians involved in the day to day maintenance and management of the Highway Network. Comprehensive details of Operational Standards are contained within Chapter 5.

Operational details of Winter Services and dealing with weather, civil and other emergencies are also included (Chapter 6).

The potential effects of climatic change are described within this HMP (see section 1.8). The results of further research and understanding of this important topic and the consequent implications for highway maintenance will be incorporated into future reviews.

This HMP will be reviewed annually and where necessary modified to reflect National and Local policy changes together with any identified improvements for service delivery standards and efficiencies.

1. INTRODUCTION

1.1 UK Code of Practice for Maintenance Management

1.1.1 The first edition of the national Local Authority Association's Highway Maintenance Code of Good Practice (LGACP) published in 1983 was prepared for the Local Authority Associations by a joint study team of technical and financial representatives from a cross section of highway authorities. The second edition, produced in 1989, as well as building on the strengths of the original included a substantial addition on highway information management systems. In 1994, the County Council adopted a Code of Practice for Highway Maintenance, which adopted the LGACP subject to specified amendments and departures.

1.1.2 The revised national Code of Practice for Highway Maintenance Management (UK CPHMM), entitled “Delivering Best Value in Highway Maintenance”, was published in July 2001 (revised July 2005 and retitled “Well-maintained Highways”) following development as a partnership project by officers of central, devolved and local government.

1.1.3 In common with the LGACP, “Well Maintained Highways” is not a prescriptive Code. Its objective is to provide a framework of guidance and standards which, if generally adopted, would promote co-ordination and consistency in the delivery of local highway maintenance services.

1.1.4 This Lancashire Highway Maintenance Plan (LCC HMP) updates the 1994 LCC Code of Practice in response to the publication of “Well Maintained Highways”.

1.1.5 Whilst the suggested recommendations of the UK CPHMM are explicitly not mandatory on highway authorities, authorities also have certain legal obligations with which they need to comply, and which will, on occasion, be the subject of claims or legal action by those seeking to establish non-compliance by authorities. It has been recognised that in such cases, the contents of the UK CPHMM may be considered to be a relevant consideration.

1.1.6 Where authorities elect, in the light of local circumstances, or specific site criteria, to adopt policies, procedures or standards differing from those suggested by the UK CPHMM, it is essential for these to be identified, together with the reasoning for such differences.

1.1.7 The HMP compares current practice in Lancashire with the UK CPHMM and comments as appropriate, indicating reasons for departures from UK CPHMM recommendations or action proposed to bring practice into line with that recommended by the UK CPHMM. Departures from the UK CPHMM are tabulated in Appendices 1 & 2,

and a "Highway Maintenance Strategy and Improvement Plan" for implementing changes to County Council policies, standards and processes is a supporting document to this Plan.

1.2 The Lancashire County Council Highway Maintenance Plan (LCC HMP)

1.2.1 The LCC HMP is a statement of policies and operational practices for highway maintenance, which will contribute towards the delivery of a quality Highway Maintenance Service and promote a consistent approach to service delivery within Lancashire.

1.2.2 The LCC HMP is an operational plan sitting within the context of the Lancashire corporate plan, the Local Transport Plan, Environment Directorate and Highways and Transportation Business Plans, and when completed and adopted, the Transport Asset Management Plan. The LCC HMP and the related operational plans for winter service, street lighting, highways structures, traffic signals & pedestrian crossings seek to focus on the condition and operation of the highway infrastructure, and will be important components of the more broadly based Transport Asset Management Plan (LCC TAMP), which will focus primarily on the overall levels of service, service options and optimum maintenance regimes for the infrastructure (see section 1.3).

1.2.3 A Best Value Review of Highway Maintenance (comprising highway maintenance, street lighting and energy, highways structures and reservoirs, highways information) was undertaken during the period 2000/01. The preparation and adoption of the LCC HMP is itself an objective of the Best Value Service Improvement Plan and the LCC HMP will incorporate policies and procedures necessary to implement the Service Improvement Plan.

1.2.4 This Highway Maintenance Plan focuses on those elements of highway maintenance and management incorporated within the Highway Maintenance Budget (HMB). An important development of this plan (See the Highway Maintenance Strategy and Improvement Plan) will be to include operational policies and plans contained within the Public Rights of Way Work and Maintenance Budget (PROWWMB) relating to the public rights of way network in Lancashire. Unless otherwise stated, this document refers solely to elements of works and policy related to the Highway Maintenance Budget.

1.2.5 The LCC HMP is not a stand-alone plan; there are a number of other LCC policy documents and Codes of Practice that have implications for highway maintenance (see section 1.5).

1.2.6 It is intended that the LCC HMP will be reviewed annually to reflect changes affecting the network and service delivery, and to monitor progress, achievements and failures.

1.3 The LCC Transport Asset Management Plan

The first Lancashire Transport Asset Management Plan has been programmed to be completed in 2009/10. The LCC TAMP will be a core document outlining the strategic direction for management and maintenance of the highway network asset, therefore the Highway Maintenance Plan is, accordingly, less detailed in the following areas:

- Inventory statistics and information;
- Service Levels;
- Activity prioritisation and funding options;
- Scheme prioritisation, programme development and coordination;
- Performance Management.

1.4 Highway Maintenance in Lancashire

1.4.1 Lancashire is the fourth largest local authority by population in England with 1.133 million inhabitants representing 2.3% of England's population. The County's GDP is estimated to be 1.7% of the UK total (*Lancashire Local Transport Plan 2000/01 to 2005/06*). Geographically there is a flat coastal plain in the west bordering the Irish Sea with the east of the County being part of the Pennine Chain and rising to 557 metres elevation. Here the main communities are concentrated in the valley bottoms together with the vehicular communication network.

1.4.2 This diversity is also reflected in the highway infrastructure and maintenance needs. Typical examples are as follows:

- Problems with Moss Roads occur only in the west of the County and are confined to agricultural areas;
- Winter Service is a major need in the east of the County, particularly as the elevation increases;
- Highway retaining walls are found predominantly in the east of the County where many roads have been constructed on sidelong ground;
- The bridges in the urban areas in the east of the County, which were mainly built during the industrial revolution, are nearing the end of their useful life and require extensive maintenance;
- The "new town" of Skelmersdale has large sections of infrastructure that reach a stage of the maintenance life cycle simultaneously, thereby creating maintenance peaks.

1.4.3 Arrangements for the organisation and management of the highway maintenance service are described in Section 7 of this HMP. The funding for overall Lancashire County Council highway maintenance is split between the Highway Maintenance Budget (HMB) and the Public Rights of Way Work and Maintenance Budget (PROWWMB).

1.4.4 Lancashire County Council maintains close working relationships with the unitary authorities of Blackpool and Blackburn with Darwen.

1.5 Context of Highway Maintenance Policy Documents

1.5.1 Various Codes of Practice, Policy Statements and Notes for Guidance have been adopted or are in the course of development. The Highway Maintenance Plan incorporates the various documents as existing policy, but will seek to compare existing policies with the UK CPHMM and indicate reasons for departures from the UK CPHMM or make recommendations, where appropriate, regarding the review and amendment of policies which conflict with the Plan. Departures from the UK CPHMM are summarised in Appendices 1 and 2 and the County Council's proposals for adopting "CPHMM-compliant" procedures, where appropriate are included in the supporting document "Highway Maintenance Strategy and Improvement Plan".

1.5.2 The review and amendment of the various guidance documents will be undertaken in accordance with UK CPHMM recommendations relating to consultation, formal approval, adoption and publication. Documents will be published in electronic format in accordance with corporate objectives that the County Council should be more accessible and accountable to stakeholders.

1.5.3 New and amended policy documents will be submitted to the relevant LCC Cabinet Member for approval.

1.5.4 Existing policy documents are listed in Table 1.1.

1.6 Consultation with Service Users, Providers and the Community

1.6.1 The County Council has established a number of general mechanisms for engaging with the wider community in relation to highway maintenance activities.

1.6.1.1 Lancashire Local Committees are now established in Districts. The joint Committee involves County and District members meeting locally in a forum where the public can speak and ask questions of members and officers on issues of local and wider interest.

1.6.1.2 The Life in Lancashire MORI public opinion survey seeks regular feedback regarding public satisfaction with County Council services including highway maintenance.

1.6.2 The Code seeks to encourage the delivery of highway maintenance as a consistent, harmonised, co-ordinated service focused upon the needs of users and the community. The relevant sections of the Highway Maintenance Plan will detail consultation arrangements for

the various policies, functions and activities of the service, where specific consultation is appropriate.

1.7 Approval and Adoption of Highway Maintenance Plan

1.7.1 The LCC HMP and subsequent annual review documents will be submitted for approval by the Cabinet Member responsible for the highways maintenance service.

1.7.2 Before seeking Cabinet Member approval of the LCC HMP, consultations will be undertaken internally within LCC and externally with other relevant Local Authorities, the Highways Agency, neighbouring highway authorities and groups representing users of the Lancashire highway network.

1.8 Climatic Change and Highway Maintenance

1.8.1 Recently published climatic change scenarios for the UK, show that average temperatures across the country could increase by 2 to 3.5 degrees C over the coming century. So it is important that we take steps to adapt our plans and operations for the likely changes in climate.

1.8.2 Our climate is already changing and it will continue to change throughout this century. This will affect many Highway Authority services, assets and infrastructure.

1.8.3 In Lancashire an increase in rainfall and rainfall intensity is likely to result in:

- An increase in the frequency of flash flooding and the consequent increased safety risks to highway users;
- Pavement deterioration as a result of wet conditions;
- Possible increases in ground water levels and soil moisture content;
- A need to address site specific details such as the capacity of drainage systems and highway culverts.

1.8.4 In Lancashire an increase in temperature is likely to result in:

- An overall reduction in winter maintenance requirements, however Highway Authorities may need to make contingency arrangements for the possibility of less frequent but more extreme cold spells if this is determined to be a potential effect of climatic change. Work is currently on-going to determine the optimum level of reserve salt stocks to reflect the changing nature of the service;
- Pavement softening and traffic-related rutting;
- Buckling of pavements;

- Flushing or bleeding of asphalts from older or poorly constructed pavements;
- Lengthening of the growing season and the related additional maintenance needs.

1.8.5 In Lancashire an increase in wind speed is likely to result in:

- An increase in the frequency of damage to roadside trees and structures;
- An increase in both the frequency and severity of storms in the Irish Sea with the consequent risk of erosion and damage to or loss of highway infrastructure at the coast.

1.8.6 Other factors to consider include:

- Proper maintenance of our roads system is an effective way of improving fuel efficiency;
- At the present moment it is inappropriate to take immediate wide scale action given both the many uncertainties and the on-going research;
- Highway Authorities will develop sustainable transport plans to reduce the use of private cars and to promote “green” modes of transport including walking, cycling, ‘bus and trains. Highway maintenance planning should reflect these potentially significant changes to the way we travel.

1.8.7 In respect of the effects of changing rainfall, temperature, and wind speed, there is on-going research being undertaken by TRL Ltd. and other National and Worldwide Organisations.

1.8.8 Reviews and future editions of this HMP will undoubtedly be increasingly influenced by climatic change issues and the influence of these changes on National, County and Directorate policies and practices.

TABLE 1.1 : SCHEDULE OF LCC HIGHWAYS CODES OF PRACTICE DOCUMENTS			
Title	**Current Version**	**Review Target**	**Issuing Section**
Code of Practice for Highway Maintenance	Superseded by Highway Maintenance Plan		Maintenance
Code of Practice on the Placing of Skips, Hoarding, Scaffolding etc. on or within the Highway	Superseded by Highway Maintenance Plan		Maintenance
Policy Statement PS1/94 Limitations on Use of Maintenance Funds	Superseded by Highway Maintenance Plan		Maintenance
Policy Statement PS2/94 Replacement of Street Trees	Superseded by Highway Maintenance Plan		Maintenance
Policy Statement PS3/94 A Renewal Policy for Flagged Footways	Superseded by Highway Maintenance Plan		Maintenance
Policy Statement PS1/96 - Weed Control	Superseded by Highway Maintenance Plan		Maintenance
Code of Practice on Winter Maintenance	Oct. 2000	Oct 2009	Maintenance
Code of Practice on Control of Placing of Items within the Highway	Sep. 1997	Mar 2010	Maintenance
Code of Practice on Highway Safety Inspections	Sep. 2005	Oct 2009	Maintenance
Policy Statement - Skidding		Sept. 2009	Maintenance
Code of Practice on Highway Status and Adoption	Dec. 2003	March 2010	Maintenance
Code of Practice on Retaining Walls Associated with Highways	June 2003	To be determined by Highways Maintenance Service Improvement Group	HEM Bridges
Specification for Construction of Estate Roads	Mar. 2002		HEM Roads
Code of Practice on C.D.M. Regulations	Dec. 1995		HEM Roads
Code of Practice on Road Lighting Design	Sep. 1997		Street Lighting
Code of Practice on Road Lighting Maintenance	Sep. 1994		Street Lighting
Code of Practice on Installation and Operation of Illuminated Decorations on or above the Public Highway	Jul. 1999		Street Lighting
Code of Practice on Mobility	Superseded, national guidance adopted		SPT
Code of Practice on Street Furniture	May 1990	As Policy and Quality Service Business Plan	SPT
Notes for Guidance on Traffic Calming Guidelines for Residential Roads	Dec. 1994		SPT
Residential Road Design Guide	1988		SPT

2. MAINTENANCE AIMS AND OBJECTIVES

2.1 Legal Framework for Highway Maintenance

2.1.1 Highways maintained at public expense and the Highways Act 1980

2.1.1.1 Vehicular highways dedicated or created since 1835 have to go through a process of adoption before they are publicly maintainable.

2.1.1.2 Footpaths and Bridleways dedicated or created since December 1949 have to go through a process of adoption before they are publicly maintainable.

2.1.1.3 The Highways Act 1980, as amended, consolidated Acts between 1959 and 1971. Section 41 of the Act places a statutory duty on Highway Authorities to maintain publicly maintainable highways. Section 58 of the Highways Act 1980 provides that, in the event of action against a highway authority for failure to maintain, it shall be a defence to show that the highway was kept in reasonable repair having regard to the traffic using it, the standard of maintenance appropriate to its use, and public safety. This establishes the principle of maintaining highways according to their functional importance.

2.1.1.4 An amendment to Section 41 was made in 2003, coming into force on 10 September 2003. Sub-section 1(A) was added stating, in particular, that a highway authority is under a duty to ensure, so far, as is reasonably practicable, that safe passage along a highway is not endangered by snow and ice.

2.1.1.5 Case Law has sought to establish the extent of the duty to maintain. Recent cases have considered that maintenance extends to certain circumstances to maintenance of the fabric of the surface and drainage.

2.2 Context of Corporate Policy

2.2.1 Corporate Objectives

The County Council has in place a corporate planning framework to deliver its corporate purpose and strategic objectives.

The Corporate Strategy http://lccintranet/corporate/corporate_strategy/ sets out the main strategic themes facing the Authority, which cover:

Our Core Purpose
http://lccintranet/corporate/corporate_strategy/core_purpose/index.asp

Corporate Objectives
http://lccintranet/corporate/corporate_strategy/can/index.asp

Corporate Commitments
http://lccintranet/corporate/corporate_strategy/commitments/index.asp

Copies of any of the above documents can be obtained from the County Council's Environment Directorate.

2.2.2 **Directorate and Service Level Objectives**

In order to help deliver the Corporate Strategy, the Environment Directorate has a framework of business plans to manage delivery of the Directorate Objectives.

The Objectives of the Environment Directorate are:

- Develop and maintain safe and effective transport systems;
- Support and protect the citizens and businesses of Lancashire;
- Improve the quality of life for the people of Lancashire and the quality of Lancashire's environment;
- Contribute to the regeneration of Lancashire's urban and rural areas;
- Plan a better and sustainable future for Lancashire.

Business Plans can be found at:
http://lccintranet/environment/business/pm/bplans/index.asp

2.2.3 **Local Transport Plan Objectives**

2.2.3.1 Corporate and Directorate objectives have been brought together in the provisional second Local Transport Plan (LTP) which has seven key objectives that will enable Lancashire to meet both the national shared transport priorities and the wider social and economic objectives of the County Council. These are to:

- Reduce road casualties;
- Improve access to jobs and services;
- Improve air quality;
- Improve the condition of transport infrastructure;
- Reduce delays on journeys;
- Increase journeys by bus and rail;
- Increase active travel.

2.2.3.2 Highway maintenance policies, procedures and practices will be developed and reviewed to maximize the contribution that the highway maintenance service can make towards delivery of the LTP key objectives and to identify and resolve any potential conflicts with the

key objectives. When considering maintenance programmes and the design of individual schemes for highways maintained under the Highways Maintenance Budget, the County Council will have regard to the following hierarchy of priorities (1 is highest priority):

1 Pedestrians and persons with restricted mobility;
2 Cyclists and public transport users;
3 Commercial traffic and motor-cyclists;
4 Car borne shoppers and coach borne visitors;
5 Car borne commuters and visitors.

2.3 Objectives for Highway Maintenance of the Network Funded by HMB

2.3.1 Under the Highways and Transportation Business Plan, the **core purpose** of the Network Management Service Group is:

To co-ordinate all activities on the highway network to reduce congestion as required by the Traffic Management Act (2004) and to ensure that the publicly maintainable highway network is maintained in a condition that is safe, serviceable, sustainable and fulfilling the purpose for which it was intended.

2.3.2 The UK CPHMM suggests that the main purpose of highway maintenance is to maintain the highway network for the safe and convenient movement of people and goods, though the purpose needs to be set within the wider contexts of integrated transport, Best Value and corporate aims and objectives.

2.3.3 The Code further defines the objectives of highway maintenance as:

- Network Safety, i.e. complying with statutory obligations and meeting user's needs for safety;
- Network Serviceability, i.e. ensuring availability, achieving integrity, maintaining reliability and enhancing condition;
- Network Sustainability, i.e. minimising cost over time, maximising value to the community, maximising environmental contribution;
- Customer Service, i.e. delivering satisfaction, providing effective consultation and information, providing efficient enquiry and complaints management.

2.3.4 These objectives are equally relevant to the network management function, which brings together highway maintenance, improvement and management. This close linkage is an essential requirement for delivering an integrated user-focused service.

2.3.5 The various sections of LCC HMP detail how the relevant policies, functions and activities of the service will contribute towards achieving

the core objectives of Customer Service, Network Safety, Network Serviceability and Network Sustainability and provide a policy benchmark against which new Policies, Codes of Practice and Guidance can be measured.

2.3.6 Policies, priorities and programmes for highway maintenance will continue to be developed with particular regard to the principles of sustainability. The highway maintenance strategy is to seek to use available resources in a way that will achieve the best whole life value from the highway network and to maximise 'added-value' from highway maintenance expenditure, in order to promote social inclusion, accessibility to services and improved facilities for pedestrians, cyclists and other vulnerable highway users.

2.3.7 Specific examples of where the principles of sustainability have been applied to highway maintenance include:

- The amendment of design standards and specifications to include the permitted use of appropriate Sustainable Drainage Systems in appropriate locations;
- The amendment of design standards and specifications to promote the use of recycled materials in new construction, including new residential estate roads;
- The use of thinner surfacing materials on maintenance schemes thus using less new aggregate and bitumen and reducing the amount of waste material. Many of these materials also have low noise characteristics;
- The increased use of recycled materials in maintenance works

2.3.8 Transport makes an important contribution to the quality of life of disabled people. Making improvements and solving problems requires a sensitive approach. The opportunity to improve the network is considered when undertaking maintenance works, particularly in respect of footways and crossings. Opportunities include:

- Make footways fit for their purpose;
- Improve pedestrian facilities especially in town centres;
- Improve integration between pedestrian routes and public transport;
- Make crossing the road easier;
- Create a holistic pedestrian network;
- Improve accessibility to the countryside.

2.4 Highway Maintenance Strategy

2.4.1 The purpose of the highway maintenance strategy is to promote implementation of objectives, plans and targets defined by the Lancashire Local Transport Plan, Corporate and service business

plans, and the LCC Transport Asset Management Plan. The objectives of the strategy are:

- To deliver the statutory obligations of the authority;
- To be responsive to the needs of users and the community;
- To provide effective management of the highway network asset;
- To support highway network management strategy and delivery of integrated transport objectives;
- To support and add value where possible to wider policy objectives.

2.4.2 The broad highway maintenance strategy is to manage, preserve, and improve the highway asset to meet user needs, both now and in the future. The detailed elements of the strategy are to:

- Identify needs against the national Code of Practice standards;
- Seek the funding necessary to meet highway maintenance objectives, through the Local Transport Plan process and through the County Council's strategic planning and budget cycle, and other funding mechanisms;
- Allocate funds on a priority needs basis in accordance with the principles of Asset Management;
- Carry out repairs to the most appropriate standards, utilising treatments to ensure value for money;
- Repair 'safety defects' as a priority;
- Consider the needs of vulnerable highway users in the structural maintenance works programmes.

2.4.3 The foundations of the Highway Maintenance Strategy are:

- A detailed inventory of all relevant components of the asset;
- A defined hierarchy for all elements of the network;
- A robust framework of policies and objectives for the service;
- Needs based assessment and prioritisation;
- A communications strategy that makes the highway maintenance service accessible and responsive to customers, such that it can meet their existing and future needs;
- A performance management system that will drive continuous service improvement and focus highway maintenance activity towards achievement of Corporate and Directorate objectives;
- A risk management strategy that will reduce the incidence of third party injuries and damage, such as to maximise the proportion of the budget that is available for highway maintenance and improvement works.

2.4.4 Strategic objectives and targets for the period 2008/2013 are detailed in the Highway Maintenance Strategy and Improvement Plan (see supporting documents).

3. THE LANCASHIRE HIGHWAY NETWORK

3.1 Highway Network and the Highway Network Information System

3.1.1 Lancashire has a highway network of over 12,000 km. made up of vehicular highways including Byways Open to All Traffic, bridleways, cycletracks, restricted byways and footpaths. Within the width of a vehicular highway there may be footways, cycletracks and margins for horse. Statute requires the Council to maintain a list of the highways maintainable at public expense – the "List of Streets" and this is held in electronic form. Whilst highways are recorded as being publicly maintainable their status is not recorded on the List of Streets.

3.1.2 The Lancashire highways information system consists of a range of datasets. The principal datasets which play a major role in providing information for highway maintenance and network management include:

- OS data sets – Boundary Line, Address Point and Land Line;
- Highway Centreline – digitised and labelled showing highways maintained from HMB;
- Highway Inventory – collected by site survey / re-survey;
- Land Charge Search Information – Declarable Highway Schemes, Highway CPO's, Rights of Way network;
- Bridges and other structures;
- Accident Details;
- Third Party Claims;
- Street Lighting Schemes;
- Line of highways recorded on Definitive Map.

3.1.3 H.I.N.C.O, (Highways Network Co-Ordination), a schemes database linked to the NRSWA Street Works Manager System, has been developed to promote improved works coordination and provide better public information. Datasets include:

- Traffic Regulation Order proposals;
- Local Safety Scheme proposals;
- Structural maintenance works;
- Bridge reconstruction and strengthening schemes;
- Cycle facility schemes.

3.1.4 The Highway Centreline dataset and associated inventory information allows the network data to be defined and interrogated in a number of ways:

- Maintenance Hierarchy;
- Maintenance Responsibility;
- Road Classification Type;

- Road Classification Number;
- New Roads and Street Works Act categories / restrictions;
- Winter Service priorities;
- Speed Limit.

3.1.5 Extensive inventory data has been collected by site survey and referenced to the Highway Centreline dataset by chainage and cross-sectional position.

3.1.6 The extent of adoption of some highways is recorded on paper adoption plans. These adoption sheets for some areas have been scanned to create a layer on the Environment Directorate GIS, and whilst detailed adoption plans of the whole County are not available as a paper record, it is considered that a scanned overlay represents an effective data management option in the short term. The record will be progressively improved and extended.

3.1.7 The County Council has commenced a programme of scanning Section 38 adoption plans, Section 116 order plans and similar historical documents in order to capture detailed adoption and drainage information in electronic format able to be displayed as a layer on the corporate GIS.

3.1.8 The corporate GIS - Mapzone- contains a wide range of information that can be viewed to aid investigations into highway related problems, including:

Addresspoint Data	**LCCRoad Works**
LCC Buildings by Directorate	SU Street Works
Bridges and Structures	Precautionary Salting Routes
Bus Stops	Land Charge Search Data
Street Lighting	NRSWA Traffic Sensitivity
Road Traffic Collisions	Public Rights of Way
Drainage Gullies	Biological Heritage Sites
Planning Applications	Common Land
School Crossing Patrols	Conservation Areas
Safety Camera Sites	Green Belt
Traffic Count Information	Community Safety Statistics
Traffic Signals	Electoral Boundaries
Highway Defects	Historical Maps
One Way Streets	Highway Adoption Plans
Road Classification	Highway Status Documents
Functional Road Hierarchy	Aerial Photographs
Pedestrian Crossings	OS Mapping (Various Scales)

3.2 Network Maintenance Hierarchy for Highways Maintained from the HMB

3.2.1 The Maintenance Hierarchy developed in response to the UK LGACP and incorporated in the LCC Code of Practice for Highway Maintenance (March 1994) has been revised in accordance with the principles of the UK CPHMM and defined In Table 3.1. Maintained route lengths covered by this hierarchy are defined in supporting documentation.

Although the hierarchy has been developed generally in accordance with the UK CPHMM, a number of local variations have been adopted:

- A major element of the Council's Highway Maintenance Strategy is to develop an effective and robust risk management strategy. Accordingly, the hierarchy has been developed to reflect not only the relative differences in urban and rural usage, but also the need to have consistent and efficient inspection / maintenance priorities on routes into and through urban areas. For urban unclassified vehicular highways, the hierarchy has been determined principally by reference to footway characteristics and for rural unclassified roads by reference to carriageway characteristics;
- Cycle tracks under S65 Highways Act have not been allocated a separate Category, but the highways of which they form a part have been allocated a Maintenance Category appropriate to the relevant cycle route in order to maintain route integrity;
- Cycle trails and leisure routes which are not the responsibility of the highway authority have not been recorded in H.I.S. The County Council will seek to work with other authorities and bodies to secure effective maintenance of such routes particularly where they link with adopted cycle routes. (See Section 3.2.2 Functional Road Hierarchy).

3.2.2 In respect of the highways maintained from HMB, in accordance with Draft Regional Planning Guidance the Council has approved a **Functional Road Hierarchy** whereby certain highways and parts of the highways are categorised in terms of actual or intended uses within the network as a whole.

3.2.2.1 The aims of a functional road hierarchy are:

- To obtain best use of the existing network through effective design, maintenance and management;
- To minimise any adverse effect of the transport system on the built and natural environment and thereby improve personal health;
- To ensure that the transport system contributes towards improving the efficiency of commerce and industry and the provision of sustainable economic development in appropriate locations.

3.2.2.2 A functional road hierarchy enables policies relating to development control, improvement proposals, maintenance allocations, speed limits, traffic management, traffic calming and all other road engineering functions to be implemented with the aim of reinforcing the intended balance of functions.

3.2.2.3 The Functional Road Hierarchy comprises 13 categories of route. Categorisation relates, at the lower range, to type of usage independent of level of usage. At present, therefore, it is felt that the Functional Road Hierarchy would not replace the Maintenance Hierarchy for highway maintenance purposes as the Functional Road Hierarchy would not promote the development of an effective and efficient risk management strategy. However, the Maintenance Hierarchy and Maintenance Policies will be developed in the context of the Functional Road Hierarchy and further refinements will be sought to ensure that the hierarchies are compatible and consistent.

3.2.3 The County Council will seek to introduce, through the Transport Asset Management Plan, formal arrangements whereby the Road Network Maintenance Hierarchy (NMH) will be regularly reviewed to reflect changes in the character and usage of the network. Reviews will consider:

- The impact of construction of major highway improvement schemes;
- The impact of traffic management and public transport schemes;
- The impact of construction of new major residential, industrial and commercial developments;
- The incidence and severity of road traffic accidents and third party injury/damage claims;
- Consultation responses from LCC Area Managers and other relevant Local Authorities.

TABLE 3.1 : ROAD NETWORK MAINTENANCE HIERARCHY			
Hierarchy Description	**LCC Cat.**	**General Description**	**CPHMM Cat.**
VEHICULAR HIGHWAYS WITH CARRIAGEWAYS			
Motorways	1	All Motorways	1
Strategic Routes	2	Primary Routes – comprising all purpose Trunk Roads and some Principal Roads	2
Main Distributor	3A	Mainly the remaining Principal Roads linking urban areas to the strategic road network	3A
Secondary Distributor	3B	Mainly other classified roads (B and C class) linking larger towns and villages with the strategic network	3B
Link Road	4A	Important unclassified roads linking main and secondary distributor network, linking estates and urban areas to each other or to classified roads or linking smaller villages with the distributor network	4A
Local Access Road	4B	Local access roads serving limited numbers of properties and small settlements, carrying only access traffic	4B
FOOTWAYS - In urban areas, Highway Safety Inspections will be undertaken according to a road's Footway Category.			
Primary Walking Route	1	Busy urban shopping and business areas, major pedestrian routes, Primary and Principal Roads	1
Secondary Walking Route	2	Local shopping areas, medium usage pedestrian routes feeding into primary pedestrian routes, B and C classified roads	2
URBAN FOOTPATHS			
Link Footway	3	Pedestrian route linking local access footways through urban areas	3
Local Access Footway	4	Low usage, residential estate footway, cul-de-sacs etc	4
Remote Footpath	6	Adopted pedestrian route not associated with a road	
CYCLETRACKS			
Remote Cycleway	5	Cycleway not associated with a road, including shared-use routes. Cycle lanes and shared use routes contiguous with a road are identified in the H.I.S. and are associated with the road of which they form part. A road's Maintenance Category reflects the need to maintain cycle route integrity. Cycle trails are not recorded within H.I.S unless they are the responsibility of the highway authority	B

3.3 Highway Inventory

3.3.1 Highway inventory data has been collected by site survey and is tabulated in an Oracle database and is linked to the Highway Centreline data (spatial data held in ArcInfo GIS). Other datasets held in the Highway Information System can be displayed spatially and identified on-screen for network management purposes, but cannot be readily interrogated or analysed from within the ARCHIS module.

3.3.2 Around 50 different types of highway feature have been recorded in the Inventory, the primary use being to allow the allocation of Routine Maintenance resources according to need. Recorded features are listed in Table 3.2.

3.3.3 Arrangements for the maintenance of the Highway Inventory are detailed in the Code of Practice for Inventory Update (February 1993). Regular updates are undertaken via a targeted annual resurvey programme.

TABLE 3.2 : HIGHWAY INVENTORY FEATURES		
Ancillary Drainage	Embankment / Cutting	Pedestrian Guardrail
Bollard	Fences and Barriers	Reference Marker
Bridge (over)	Filter Drain	Retaining Wall
Bridge (under)	Footway Edging	Road Markings Hatched
Bus Stop	Footway	Road Markings Longitudinal
Carriageway	Ford	Road Markings
Cattle Grid	Gates and Stiles	Road studs
Central Island	Grip	Safety Bollard (electrical)
Central Reserve	Gully	Safety Fence
Channel	Hard Shoulder	Signs
Communications Cabinet	Hedge	Street Furniture
Counterfort Drain	Kerb	Telephone Box M/Way
Crossover	Lay-by	Traffic Signals
Culvert	Level Crossing	Tree Single
Cycle Track	Lighting Point	Trees Group
Detector Loop	Manhole	Verge
Ditch	Pedestrian Crossing	Wall

3.4 Dedication and Adoption of Highways on New Developments

3.4.1 Section 38 of the Highways Act 1980 enables a new highway to be adopted pursuant to an Agreement between the developer and the Council. Before a highway for mechanically propelled vehicles or other highway on a new development can be adopted the Council must ensure that it is suitable to be maintainable at public expense by considering its function, condition, layout and specification. The Council has therefore produced design guides relevant to the layout and construction of new estate roads which developers are encouraged to follow and which includes a specification aimed at producing a long life, low noise, and low maintenance highway:

- Residential Road Design Guide;
- Specification for Construction of Estate Roads;
- Traffic Calming Guidelines for Residential Roads;
- Code of Practice for Road Lighting Design;

- Code of Practice on Highway Status and Adoption.

3.4.2 The Council will, by the use of such guidance documents in support of the planning process, promote the construction of estate roads laid out and constructed in accordance with corporate policies and the principles of sustainable development. Guidance documents encourage the use of recycled materials, low energy lighting systems and Sustainable Drainage Systems in appropriate locations.

3.5 Public Rights of Way Recorded on the Definitive Map

3.5.1 Public Rights of Way in this document means those ways that are shown on the Definitive Map, comprising Footpaths, Bridleways, restricted Byways and Byways Open to All Traffic.

3.5.2 The maintenance of public rights of way is funded from the PROWWMP. In operational terms, Rights of Way are managed and maintained by the Environment Directorate's Countryside Service (see Chapter 7).

3.5.3 It is intended that the procedures for inspecting and maintaining rights of way should be reviewed to ensure that such arrangements are effective in terms of risk management (see the supporting document "Highway Maintenance Strategy and Improvement Plan").

3.5.4 Most, but not all definitive Public Rights of Way are highways maintainable at public expense.

3.5.5 The Council's responsibilities include:

- The updating and continuous review of Public Rights of Way on the Definitive Map - this map may be inspected at the Environment Directorate, Winckley House, Preston;
- Administering the law concerning rights of way and, in particular, ensuring that they can be used by the public;
- Assisting farmers and landowners in relation to their responsibility to maintain stiles and gates e.g. by making grants to farmers or landowners of at least a quarter of the cost of maintaining approved stiles and bridlegates;
- Signposting footpaths and bridleways where they leave the metalled highway;
- Waymarking routes;
- Maintaining and controlling natural vegetation on the surface of footpaths and bridleways;
- Maintaining most bridges and culverts - responsibility for the provision, repair and maintenance of bridges and culverts is shared between the landowner and the County Council and may be different in each case. The County Council is responsible for most

footbridges, but where a public footpath or bridleway crosses a bridge, over which there are private vehicular rights, then maintenance of the bridge to vehicular standard is likely to be the responsibility of the landowner. Some footbridges over railways and inland waterways may be privately maintainable but the County Council will normally be responsible for the surfaces of the paths over these bridges.

3.5.6 Complaints regarding litter and fly-tipping on public rights of way will be referred to the relevant District Council.

3.5.7 In June 2005, the County Council adopted a Rights of Way Improvement Plan in accordance with the requirements of the Countryside and Rights of Way Act 2000.

4. ASSESSING AND MONITORING NETWORK CONDITION (HIGHWAYS MAINTAINED FROM THE HMB)

4.1 Highway Inspections

4.1.1 National Code of Practice Recommendations

The Code of Practice for Maintenance Management recommends that inspections and surveys should be categorised as follows:

- Safety Inspections;
- Service Inspections;
- Structural Condition Surveys.

4.1.2 Highway Safety Inspections

4.1.2.1 These mainly comprise relatively frequent comprehensive inspections of all highway elements, but the category also includes routine scouting for failures of highway lighting and illuminated signs and less frequent specialised inspections for electrical safety.

4.1.2.2 Arrangements for Highway Safety Inspections are detailed in Section 5.2 Monitoring of Highway for Network Safety.

4.1.3 Highway Service Inspections

4.1.3.1 These mainly comprise more detailed inspections tailored to the requirements of particular highway elements to ensure that they meet requirements for serviceability. The category also includes inspections for regulatory purposes, including NRSWA, intended to maintain network availability and reliability. It also includes less frequent inspections for network integrity. Service inspections replace the “detailed inspections” referred to in the previous code. The UK CPHMM recognises that the extent of the service inspection regime adopted by authorities is discretionary and that there may be considerable local variation in the light of individual circumstances.

4.1.3.2 In general, the County Council does not undertake formal Service Inspections as described in the UK CPHMM Where “activity-specific” service inspections are undertaken, the arrangements are detailed in the relevant sub-sections of Section 5 Operational Standards, Investigatory Levels and Policies.

4.1.3.3 The Council’s system of Highway Safety Inspections has been extended to include a number of features relating to network serviceability. In addition to Safety Inspections, detailed inspections will be prompted by a number of circumstances:

- Inspections carried out as part of a NRSWA inspection;
- Ad-hoc inspections required by perceived conditions;
- Investigatory inspection prompted by service user enquiry;
- Investigatory inspection prompted by feedback from routine maintenance operations.

4.1.4 **Pavement Structural Condition Surveys**

4.1.4.1 Structural condition surveys are primarily intended to identify deficiencies in the highway pavement which, if untreated, are likely to adversely affect network value. They may also have implications for serviceability in the short term.

4.1.4.2 The County Council is progressively introducing a Tranche 2 accredited United Kingdom Pavement Management System (UKPMS). Initially used to facilitate data collection for Best Value Performance Indicators and to prepare the planned structural maintenance programme for the principal road network, data from UKPMS is being used increasingly to assist preparation of the planned structural maintenance programme for the non-principal road network.

4.1.4.3 The County Council will continue to support the National Road Maintenance Condition Survey (NRMCS) and provide annual returns for requested survey sites.

4.1.4.4 The programmes for structural condition surveys are shown in Table 4.1.

4.1.5 **Scheme Selection**

4.1.5.1 The method of selecting schemes for inclusion in the annual maintenance programme is set out in the Quality Management Procedure. This procedure sets out the time lines and the process by which technical information, including SCRIM, SCANNER, DEFLECTOGRAPH or CVI, is used to form a priority-based approach for spending decisions.

4.1.5.2 After a coarse visual assessment of the objective survey data held within the PMS, each individual selected scheme is subject to detailed scoring and where necessary investigation into the cause of the problem before discussion takes place with the Area Managers to refine the prioritisation process.

TABLE 4.1 : ROAD STRUCTURAL CONDITION SURVEYS	
Classification	**Network Coverage**
Coarse Visual Inspections (CVI)	
Non-Principal Unclassified	25% per year
Detailed Visual Inspection (DVI)	
Whole Network	Approximately 4% per year to determine network priorities, DVI's targeted from CVI output and local maintenance manager assessments
Deflectograph	
Principal	25% per annum
Non-Principal Classified	As necessary for scheme evaluation / assessment
Non-Principal Unclassified	
SCRIM	
Principal	33% per annum
Non-Principal Classified	100% surveyed 2005/06, extent of future surveys to be determined during review of LCC Skidding Resistance Policy
Non-Principal Unclassified	As required
Scanner Surveys	
Principal	100% in one direction only
Non-Principal Classified	100% of B roads in one direction only 50% of C roads in one direction
Non-Principal Unclassified	Future survey coverage to be determined

5. OPERATIONAL STANDARDS, INVESTIGATORY LEVELS AND POLICIES REGARDING THE NETWORK MAINTAINED FROM THE HMB

5.1 Introduction

5.1.1 This Section of the Plan indicates for each element of the network:

- Standards and targets considered necessary to meet the key objectives of customer service, network safety, network serviceability and network sustainability;
- The potential for highway maintenance activity to contribute to a wide range of corporate, and transport objectives;
- Comparison with the UK Code of Practice for Highway Maintenance Management (CPHMM) and reasons for departures from the UK Code of Practice standards;
- Arrangements, where appropriate, for consultation with neighbouring authorities, users and the community.

5.1.2 The standards and targets specified in the LCC HMP are those that will normally be applied to highway maintenance operations. Specific exemptions and departures from the standards will be permitted in appropriate circumstances following the completion and documenting of a "risk assessment" subject to approval by the LCC Network Manager.

5.2 Monitoring of Highway for Network Safety

5.2.1 Safety inspections are designed to identify all defects likely to create danger or serious inconvenience to users of the network or the wider community. Such defects should include those that will require urgent attention (within 24 hours) as well as those where the location and severity are such that less urgent response times would be acceptable.

5.2.2 The implementation of effective systems for monitoring and responding to highway defects has a direct contribution to the delivery of Local Transport Plan objectives by:

- Reduced noise from motor vehicles;
- Allowing smooth driving without sudden variations in speed or direction;
- Reduced risks to vulnerable user groups, particularly cyclists and pedestrians;
- Reduced wear and tear on vehicles;
- Reduced compensation payments in respect of claims for damages against the highway authority, allowing a greater proportion of the highway maintenance budget to be directly invested in the maintenance and improvement of the highway network.;

- Promoting journeys by alternative modes of transport by improving comfort and convenience for cyclists and pedestrians;
- Improved mobility for elderly and disabled people.

5.2.3 LCC Code of Practice for Highway Safety Inspections

5.2.3.1 The Council's policy, in respect of safety inspections, investigatory levels and response, is defined by the LCC Code of Practice for Highway Safety Inspections.

5.2.3.2 The LCC Code of Practice is implemented by a countywide standard inspection regime undertaken by a Highway Safety Inspection Consultant appointed via competitive tendering. Inspections under current arrangements commenced on 1 October 2002.

5.2.3.3 Departures from the UK CPHMM in respect of inspection frequencies, intervention levels and response times are tabulated in Appendices to this HMP. The LCC Code of Practice for Highway Safety inspections will be reviewed and risk assessments documented in respect of departures from the UK CPHMM.

5.2.4 Monitoring Safety of Cycle Routes

Highway Safety Inspections will be undertaken, in accordance with the LCC HSI Code of Practice, on adopted routes for which the highway authority is responsible. This policy raises issues which require to be addressed:

- Cycleways may be linked by quiet roads or other carriageways deemed appropriate for inclusion in a promoted cycle route. In terms of network integrity, such roads should be designated in the hierarchy as Link Roads or a higher category to ensure inspection priority at least equivalent to Remote Cycleways. However, until the Functional Road Hierarchy (see Section 3.2.2) is fully developed, it will not be possible to fully meet the Code objective of network integrity;
- Cycle Tracks and Cycle Trails may be under the control of other bodies e.g. District Councils, Sustrans, or Utility Companies as large landowners. The County Council will work with such partners to seek to ensure consistent standards of maintenance and inspection are applied across the network.

5.3 Carriageways, Footways and Cycleways

5.3.1 Objectives for Structural Maintenance of Carriageways, Footways and Cycleways

5.3.1.1 To provide for the safe operation of the highway network by:

- Implementing targeted and prioritised structural maintenance programmes that will prevent further deterioration and the consequent "Safety Defects";
- Restoring skid resistance at sites defined as Deficient following investigation and assessment in accordance with the County Council's Code of Practice on Skidding Resistance.

5.3.1.2 To contribute to County Council objectives for accessibility and integrated transport by:

- Facilitating cycling, walking and wheelchair use by improving ride quality, surface regularity and surface drainage;
- Improving comfort for bus passengers;
- Incorporating network improvements into structural maintenance schemes where opportunities arise to improve facilities for public transport, cyclists, pedestrians and people with impaired mobility.

5.3.1.3 To maintain carriageways, footways and cycleways in a manner consistent with the principles of sustainability and effective asset management, including:

- The use of thinner surface courses on carriageways, most of which have the additional benefit of "low noise" characteristics;
- The use of recycled materials and recycling techniques where possible;
- The application of "whole life costing" principles in the preparation of programmes and the timing and selection of treatments.

5.3.2 **Service Inspections for Carriageways, Footways and Cycleways**

5.3.2.1 The Council does not undertake formal Service Inspections (see Section 4.1). A number of features relating to network serviceability are, however, inspected as part of Highway Safety Inspections for notification to the relevant Area highway maintenance team.

- Movement of concrete carriageways under traffic;
- Mud on the highway;
- Thorns in a carriageway or cycletrack;
- "Other" non-specified defects.

5.3.2.2 In addition to Safety Inspections, detailed inspections will be prompted by a number of circumstances:

- Inspections carried out as part of a NRSWA inspection;
- Ad-hoc inspections required by perceived conditions;
- Investigatory inspection prompted by service user enquiry;

- Investigatory inspection prompted by feedback from routine maintenance operations.

5.3.3 **Structural Maintenance Categories**

5.3.3.1 Structural Maintenance is financed primarily via County Council revenue and capital funding arrangements. Other sources can include contributory payments from developers, private finance initiatives or indirect benefits from schemes funded via other nationally or regionally available funding, particularly where projects seek to enhance the streetscape.

5.3.3.2 Maintenance of carriageways, footways and cycleways is defined operationally by the following maintenance categories, in accordance with CIPFA guidance:

- Highways Road Routine – Patching (carriageways);
- Highways Road Routine – Footways etc;
- Highways Road Structural – Reconstruction;
- Highways Road Structural – Overlay;
- Highways Road Structural – Resurfacing;
- Highways Road Structural – Surface Dressing.

5.3.4 **Priority Rating for Highway Structural Maintenance**

5.3.4.1 The County Council's risk management strategy for highway maintenance involves allocating sufficient resources to Highway Safety Inspections and the consequential repairs to enable progressive reductions in both the numbers of third party claims and the level of compensation paid in respect of such claims. In the medium term, reactive maintenance will be the main priority for highway maintenance funding. However, successful implementation of the risk management strategy will allow progressive reallocation of resources from reactive maintenance and third party claims to planned structural maintenance works that will enable improvements in the overall condition of the network.

5.3.4.2 Highways Road Structural maintenance works will be prioritised by use of the PMS data (see Structural Condition Surveys and UKPMS) applied having regard to local maintenance manager's advice and engineering judgement.

5.3.5 **Definition of Activity**

5.3.5.1 Highways Road Routine – Patching (carriageways) includes haunching, repairing potholes, etc. Exclude works carried out as an essential element of Highways Road Structural works as detailed below.

5.3.5.2 Highways Road Routine – Footways etc. Includes kerbing and edging, repairing potholes etc. Exclude works carried out as an essential element of Highways Road Structural works as detailed below.

5.3.5.3 Highways Road Structural – Reconstruction. The removal of some or all of the structural layers of road or pavement and their replacement with new or re-cycled material, including resurfacing and any consequent works in connection with footways, cycletracks, drainage, road markings and kerbs. Small areas of reconstruction carried out prior to larger overlaying or resurfacing works should be included with the larger operation.

5.3.5.4 Highways Road Structural – Overlay. Overlay of existing surface course to increase or restore the strength of the carriageway. As with reconstruction above any necessary prior or consequential works should be included. Overlays of thickness up to and including 50mm should be classified as resurfacing.

5.3.5.5 Highways Road Structural – Resurfacing. Replacement of the existing surface course to restore the running surface. As above, any prior or consequent works should be included within the larger project.

5.3.5.6 Highways Road Structural – Surface Dressing. Treatment to restore the surface texture and seal the carriageway, including any prior or consequential works such as the need to fill potholes or to do minor repairs or patching to prepare the road for resurfacing. Surface Dressing includes the renewal of anti-skid treatment and road markings.

5.3.6 Policies for Highways Road Structural Maintenance

5.3.6.1 The County Council will allocate resources to programmed Highway Safety Inspections and safety repairs in order to secure the safety of the highway, minimise risk to users of the highway and optimise the level of resources able to be allocated to maintenance of the highway asset. The County Council's policy for the maintenance and renewal of flagged footways is detailed in Section 5.3.9 of the Plan.

5.3.6.2 The County Council will allocate resources for programmes of work needed to implement the LCC Code of Practice on Skidding Resistance.

5.3.6.3 The County Council will meet the objectives for structural maintenance via a programme of Highways Road Structural Maintenance works. This programme is developed from information resulting from Highway Safety Inspection reports and the PMS data (see Structural Condition Surveys and UKPMS), having regard to local maintenance manager's advice and engineering judgement.

5.3.6.4 The County Council will seek to promote walking and cycling by the maintenance of a safe and convenient network of footways, footpaths, cycleways and cycletracks.

5.3.6.5 Surface treatment will be used as a maintenance treatment to further extend the life of paved areas before major maintenance or reconstruction is required, and to maintain skidding resistance in accordance with the Council's Code of Practice on Skidding Resistance.

5.3.6.6 When undertaking structural maintenance, the County Council will seek to secure continuous improvement in the safety, serviceability and network integrity of cycle routes, in particular by ensuring that carriageways identified as part of a cycle route in the Functional Road Hierarchy are maintained with regard to the particular needs of cyclists.

5.3.7 **Moss Roads**

5.3.7.1 Increasing trends of extreme weather events, particularly the number of very dry summers of the late 1980s, 1990s and the current decade, have had a major effect on Lancashire's moss roads, especially in the Over Wyre, West Lancashire and Fylde areas of the County. The peat, upon which these roads are founded, responded to this exceptional weather by shrinking and drying out to an unprecedented degree. The consequence was that roads in those areas became severely deformed and cracked. The cracks have been shown to run deep into the substructure of the roads and the wetter-than-average winters have allowed moisture to penetrate the sub-grade and cause further deterioration.

5.3.7.2 Because of the nature of the peat, the moss roads inevitably serve highly productive agricultural land (Grade 1 in the case of West Lancashire). A failure to maintain these roads to an adequate standard therefore might be expected to have a deleterious effect on economic activity in the affected areas. However, although a number of trials have been carried out on the means of minimising damage, these are, unfortunately extremely expensive and the diversion of sufficient resources to resolve the problems would starve other areas of essential funds.

5.3.7.3 A detailed analysis carried out in 2000/01 revealed that the minimum anticipated cost to bring the worst roads up to an acceptable standard and safeguard their future integrity was in the order of £7.5m, with an outstanding requirement of £25.1m to deal with the remaining 100km of affected roads. The 2000/01 and 2001/02 highway maintenance allocations included £1m for improvement of moss roads, but unfavourable grant settlements for subsequent years have prevented a continuing programme of works. One or two routes are now in such

poor condition that it may not be long before they will need to be temporarily closed to through traffic pending the identification of adequate maintenance funding.

5.3.8 **Limitations on Road Structural Maintenance Activity**

5.3.8.1 Statutory Instrument No.296 of the Local Government (Prescribed expenditure) Regulations 1983 defines where expenditure is not prescribed expenditure (i.e. where work can be carried out from Maintenance or other revenue funds). The legitimate use of highway maintenance funding is defined as expenditure on works on any highway maintainable at public expense where the works do not:

- Widen the carriageway of any road by more than 0.25 metres;
- Significantly change the alignment of the carriageway of any road;
- Substantially improve the character of the highway, e.g. metal an unmetalled highway;
- Involve the provision of new traffic signals (other than by the replacement of existing traffic signals).

5.3.8.2 In addition, a scheme involving land becoming part of the highway, whether by acquisition or dedication, should not be funded as a highway maintenance scheme.

5.3.8.3 Where it is considered that a particular situation is unclear, it must be referred to the LCC Area Manager for decision.

5.3.9 **Policy for Flagged Footways**

5.3.9.1 Flagged footways may be considered attractive, but in fact represent a serious long-term maintenance liability.

- As car ownership and traffic levels grow, there is a heavier demand on road space, and a corresponding increase in the level of vehicle over-running of and parking on footways. This is usually an attempt by drivers to ensure that running traffic, including emergency vehicles, on the carriageway, is not impeded. However, not only does this impede footway user flows, sometimes causing potentially dangerous situations by making pedestrians and other bona fide footway users use the carriageway, but it results in cracked and broken flags which will, in time, become hazardous;
- Flagged footways even when they have not been over-run or disturbed by the Public Utilities will, in time, settle differentially creating “trips”. Indeed, the majority of insurance claims by pedestrians are on flagged footways. Apart from the resultant cost, which falls upon the Highway Authority, this can represent a significant personal safety risk to footway users;

- Finally, bituminous (black-top) footways are significantly cheaper to provide and maintain than equivalent flagged footways. A report considered by the Highways and Transportation Committee in January 1988, using historical recorded data, showed that at the highest standard of maintenance, and assuming some over-running, the 20 year cost of providing and maintaining a concrete flagged footway was approximately 40% higher than for a typical black-top footway. In addition, there would also be expected to be some savings in Insurance Claims. This inevitably means that more footway works can be carried out from the available financial allocation, to the overall benefit of all footway users in the County, if black-top construction is used.

5.3.9.2 Where an existing black-top footway is being re-laid, it must be in black-top material.

5.3.9.3 The policy relates to flagged footways which are being renewed. This includes the case where a narrower kerb is being installed, and the flags no longer fit. The costs of renewal for stone and concrete flags differ considerably, and they are therefore considered separately.

5.3.9.4 **Stone flags**

- The cost of simply relaying stone flags is high, and replacements for broken flags are not readily available. As a consequence, the point at which replacement by black-top materials is cheaper is at a relatively low level;
- Where full relaying is necessary and more than 5% of the flags must be replaced, or where second hand flags are not available, then the footway should be renewed in black-top materials. New stone flags may not be used for replacement purposes;
- It may be that, in order to carry out repairs and renewal of stone-flagged footways in accordance withy the policy, it is necessary to cannibalize other footways to provide the necessary materials. Where this is necessary, the decision as to which footways to cannibalize is left to the discretion of the Area Manager;
- Where replacement flags are permitted, then second hand flags should be used where practicable to ensure a better match. If flags cannot be matched to the existing, and the footway will take on a patchwork appearance, consideration should be given to renewing it in black-top materials;
- Under no circumstances must second hand stone flags be used in a pedestrian area where service vehicles are permitted.

5.3.9.5 **Concrete flags**

Where 25% or more relaying is necessary, and more than 10% of the flags must be replaced, then the footway should be renewed in black-top materials.

5.3.9.6 Flags only may be replaced in the following circumstances:

- In areas of high pedestrian activity such as shopping centres;
- In designated Conservation Areas where the County Council adopt a “like for like” approach to maintenance and repair. If the existing footway is black-top, this would normally be replaced, but consideration will be given to particular cases, particularly if additional installation and maintenance funding can be identified;
- In the case of terraced properties without forecourts or gardens, a row of flags may be laid adjacent to the properties if the Area Manager considers it to be a practicable proposition, and the frontagers so wish. This row will normally be of concrete flags to ensure a consistent width for ease of construction. In exceptional circumstances, and where stone flags existed previously, they may be re-used provided that the Area Manager is satisfied that the black-top can be suitably compacted adjacent to the flags. It must be recognized that difficulties in compaction may well lead to the development of differential settlement;
- In any circumstances if the District Council is prepared to fund the difference in cost between flags and black-top. This contribution will include for both initial installation and any additional maintenance costs identified by the Area Manager.

5.3.9.7 The generally accepted form of footway surfacing will be a granular sub-base overlaid with a bituminous macadam binder course, and a fine graded macadam surface course. Where considerable vehicle over-running is expected, then a thicker base of dense-base macadam may be used to give additional strength. Preventative maintenance would normally be required after 10 – 15 years and may take the form of patching associated with surface dressing, slurry-sealing or, if levels permit, a thin overlay.

5.3.9.8 Where flags are permitted, the treatment should take into account the amount of over-running expected. Where this is likely to be considerable, then there are advantages in providing a width of block paving, adjacent to the kerb, equivalent to that which is normally over-run. The remainder of the footway may be completed in either normal sized hydraulically pressed or small element flags. The use of a concrete base, thicker flags, small element flags on their own, and full-width block paving may be approved, but the case must be made to, and considered by the Area Manager.

5.3.9.9 District Councils may, if they wish, contribute the extra-over installation and maintenance costs for non-standard, more expensive types of construction. Reference should be made to the relevant "Residual Agreement".

5.3.10 **Operational Standards for Structural Maintenance**

In general, the UK CPHMM does not define operational standards for structural maintenance. Service levels and targets for structural maintenance will be defined in the Transport Asset Management Plan. The County Council's current Operational Standards are detailed in Table 5.3.1.

TABLE 5.3.1 : OPERATIONAL STANDARDS FOR STRUCTURAL MAINTENANCE		
Feature	**LCC Standards**	**Notes**
General	Pavement condition will be assessed via the PMS utilising System Intervention Levels defined by the default set of UKPMS Rules and Parameters.	
	Operational standards for reactive maintenance are detailed in the Council's LCC Code of Practice for Highway Safety Inspections	
	Operational standards for skidding resistance are detailed in the Council's Code of Practice on Skidding Resistance	
Carriageways	New surface courses on hierarchy category 1, 2, & 3 roads shall normally be 14mm nom. size Stone Mastic Asphalt 50 pen binder. (specified thickness 35mm).	Low noise surfacing, with traffic management and whole life costing benefits but with early life skidding problems for some site/traffic combinations. Surface course joints to be cut, painted and offset from vehicle wheel tracks. Specified thicknesses for 10mm nominal size aggregate to be 25mm (or 30mm November to February inclusive). Specified thicknesses for 6mm aggregate to be 20mm (not permitted December to February inclusive or nights of November & March).
	New SMA surfacings on rural roads (>40 m.p.h) shall be signed for 12 months or such lesser time as may be deemed appropriate in consultation with the County Highways Laboratory with 900mm signs to Diagram 562 (other danger ahead) and supplementary plate "New Surfacing".	
Footways	Preferred surface course material for new surfacing is 6mm nominal size dense surface course, 125 or 190 pen binder.	Other types of bituminous materials may be approved at certain sites e.g. footway gradients exceeding 10%. Preferred surface course material under review having regard to winter service statutory duty. Enhanced footway surfacing materials may be approved for amenity purposes where the District Council meets the increased costs of installation and maintenance.
	Flagged footways shall be treated in accordance with the Council's Policy Statement PS3/94 A Renewal Policy for Flagged Footways.	
Cycleways and sealed surface Bridleways	LCC code of practice for the construction and maintenance of cycle routes – 'Lancashire The Cyclists County' (August 2005).	Surface dressing with 6mm chippings preferred surface finish, having regard to the needs of horse riders and Winter Service statutory duty.
Patching	Subject to the Priority Rating for Highway Structural Maintenance and the availability of resources, the operational standards for routine patching shall be in accordance with the principles laid out in the New Roads and Street Works Act 1991 Specification for the Reinstatement of Openings in the Highway.	Patching in 14mm nom. size SMA surface courses shall be undertaken in 10mm nom. size SMA, 50 pen for machine lay, 125 pen for hand lay.

5.4 Highway Drainage Systems

5.4.1 Objectives for Maintenance and Improvement of Highway Drainage Systems

5.4.1.1 To provide for the safe operation of the highway network by:

- Ensuring that surface water is removed from carriageways, footways and cycleways as quickly as possible to prevent ponding and flooding that could cause a danger to the public;
- Preventing by the use of appropriate enforcement action, or by direct action where enforcement action is not possible or practicable in terms of obviating danger to the public, the uncontrolled discharge of water from private land or unadopted highways onto the highway such as might cause a danger to the public by the formation of ice, erosion of surfaces or accumulations of debris.

5.4.1.2 To promote journeys by alternative forms of transport by improving facilities for pedestrians and cyclists by reducing the extent to which water collects on the highway during or following rainfall.

5.4.1.3 To provide and maintain drainage systems in a manner consistent with the principles of sustainability and effective asset management, including:

- Preventing water from soaking into road foundations such as to cause structural damage;
- Preventing the unauthorised discharge of highway surface water run-off into residential or commercial property such as might cause nuisance or damage;
- Preventing the unauthorised discharge of highway surface water run-off such as might cause flooding of private land adjacent to the highway;
- The use, in appropriate circumstances, of sustainable drainage systems on new development sites and highway improvement schemes;
- Where practicable, taking reasonable precautions to prevent pollution of watercourses;
- Ensuring that ditch cleaning operations are undertaken with due regard to the ecology and bio-diversity status of the adjoining verge and private land.

5.4.2 Service Inspections for Highway Drainage Systems

5.4.2.1 The Council does not undertake formal Service Inspections (see Section 4.1). A number of features relating to network serviceability are, however, inspected as part of Highway Safety Inspections.

- Blocked gullies;
- Ironwork rocking under load;
- Gully gratings with bars which are parallel to the carriageway;
- Missing covers.

5.4.2.2 In addition to Safety Inspections, detailed inspections will be prompted by a number of circumstances:

- Inspections carried out as part of a NRSWA inspection;
- Ad-hoc inspections required by perceived conditions;
- Investigatory inspection prompted by service user enquiry;
- Investigatory inspection prompted by feedback from routine maintenance operations.

5.4.3 Highway Drainage Systems Maintenance Categories

Maintenance of Highway Drainage Systems is defined operationally by the following maintenance categories:

- Drainage Cleaning (see Section 5.4.5);
- Drainage Repairs (see Section 5.4.6).

5.4.4 Priority Rating for Highway Drainage Works

Table 5.4.1 indicates a priority-rating matrix to enable the comparison of drainage problems for allocation of resources. Departures from the priority rating matrix are permitted following a risk assessment having regard to:

- Relative severity of problems under considerations;
- Seasonal variations in potential for formation of ice;
- Action necessary to promote delivery of the Council's objectives for integrated transport, e.g. excessive ponding adjacent to a bus stop or a heavily used footway, ponding over an extensive proportion of a cycle-lane etc;
- Frequency of flooding;
- Number of householders, pedestrians and motorists affected by the problems under consideration;
- Revenue costs of response to flooding incidents e.g. placing signs, road closures, sandbagging etc.

TABLE 5.4.1 : PRIORITY RATING SYSTEM FOR DRAINAGE WORKS (Low Score = High Priority)							
Reason for Proposed Works	**Road Category**						
	1	**2**	**3a**	**3b**	**4a**	**4b**	
Flooding of residential/commercial property arising from defective highway drainage system	1	1	1	1	1	1	
Flooding/Ponding on the carriageway rendering highway impassable	1	1	1	1	1	1	
Flooding/Ponding on the carriageway presenting a hazard to road users	1	1	1	1	2	6	
Seepage of water onto the carriageway liable to result in the formation of ice in the wheel tracks	1	1	1	8	11	12	
Water crossing the carriageway on bends and gradients liable to cause aquaplaning	1	1	1	8	10	16	
To eliminate damage to the highway requiring immediate works i.e. severe scouring	1	1	1	3	4	6	
Flooding/Ponding on the carriageway presenting a nuisance to road users	2	6	8	13	17	20	
To eliminate damage to the highway requiring medium term works	5	7	10	12	13	16	
Works in conjunction with major structural maintenance or surface dressing	5	7	10	12	13	16	Or fund via scheme and evaluate scheme accordingly
To eliminate damage to the highway requiring long term works	9	12	14	16	18	20	
Discharge of water to private land adjacent to the highway not causing flooding to residential or commercial property	Separate justification to be made for schemes in this category						

5.4.5 Operational Policy and Standards for Drainage Cleaning

5.4.5.1 Definition of Activity

- The cleaning of gullies, catchpits or manholes that are the responsibility of the highway authority, the sole purpose of which is to remove water from the highway. (If the drainage system carries roof water or water from private properties, that system is the responsibility of other authorities. In these cases the highway authority is responsible for highway gullies and gully connections only);
- The testing, rodding and jetting of the highway drainage system. This includes drains, gullies and their connections, inspection chambers, interception pits, piped ditches, grips, kerbed offsets, carriageway drainage on structures and the drainage of subways. The cleaning of drainage installed outside the highway boundaries

under licence or easement should be included. Cleaning includes excavation, backfill and reinstatement necessary to jet a gully connection that does not have a rodding facility;

- The maintenance of ditches and grips through the removal of silt, vegetation growth and damage to allow free passage of water from the highway. Except when required in an emergency situation, maintenance should be confined to those ditches that are the responsibility of the highway authority. Roadside ditches are generally the responsibility of the adjacent landowner;
- The clearance or replacement of filter media as necessary to maintain the effective operation of filter drains and soakaways;
- The clearance of silt and vegetation from culverted watercourses and associated debris screens for which the highway authority is responsible. Generally, the highway authority is responsible for culverted watercourses passing under the highway except where it can be shown that another person or authority is responsible. Culverts with a clear span exceeding 1.2m (masonry culverts), 1.3m (concrete box), 1.4m (pipes), or multiple conduits with a waterway cross-sectional area exceeding 2.2 m^2 are defined as highways structures and maintained in accordance with the operational policy for highways structures.

5.4.5.2 **Policy for Drainage Cleansing**

Subject to the availability of resources the County Council will carry out the minimum amount of drainage cleansing consistent with meeting the objectives for maintenance and improvement of highway drainage systems.

5.4.5.3 Operational standards for drainage cleansing are detailed in Table 5.4.2.

TABLE 5.4.2 : OPERATIONAL STANDARDS FOR DRAINAGE CLEANSING			
Feature	**Standards**	**UK CPHMM Standard**	**Notes**
Gully	All gullies emptied once per year on a scheduled basis. Some gullies emptied up to 3 times a year according to need on a scheduled basis. Ad-hoc gully emptying as resources allow in accordance with priority objectives.	Once per year. Additional empties according to need	No more than 50mm of material shall remain in the gully before it is recharged with clean water. Gullies shall be overfilled with water following emptying to ensure they are clear. Gullies without sumps shall be fully flushed through to confirm they are functioning correctly Non-functioning gullies shall be reported for follow-up action.
Catchpits	Cleaned as required	Cleaned as required	
Petrol Interceptors	Cleaned on a scheduled basis according to site requirements	Cleaned on a scheduled basis according to site requirements	
Soakaways	Chamber cleaned and filter media replaced as required. Associated catchpit (if any) cleaned once per year on a scheduled basis.	Cleaned as required	Soakaways only to be installed as a last resort in accordance with Guidelines for Provision of Soakaways.
Gully Connections and Piped Drainage Systems	Cleaned as required. Action prioritised with regard to resource availability and priority objectives.	Cleaned as required but at not more than 10 year intervals.	See Appendix 2
Highway Ditches	Cleared as required following inspection and assessment of need.	Cleared as required	Spoil shall not be deposited on Special Interest verges or other sensitive sites
Kerbed Offsets	Jetted once per year on a scheduled basis Ad-hoc jetting as required. Action prioritised with regard to resource availability and Priority Rating.	Jetted once per year on a scheduled basis	
Grips and kerbed breakwaters	Category 0, 1 and 2 roads - clear once per year after last grass cut. Ad-hoc clearance as required. Action prioritised with regard to resource availability and Priority Rating.	Cleaned as required	

TABLE 5.4.2 : OPERATIONAL STANDARDS FOR DRAINAGE CLEANSING			
Feature	**Standards**	**UK CPHMM Standard**	**Notes**
Culverts	Cleared as required following inspection and assessment of need.	Cleaned as required and inspected every 5 years for structural damage and blockages.	Formal policy for trash screen inspection to be developed (see Highway Maintenance Strategy and Improvement Plan)
Filter Drains	Works as required following inspection and assessment of need.	Cleaned as required but at not more than 10 year intervals.	See Appendix 2

5.4.6 Operational Policy and Standards for Drainage Repairs

5.4.6.1 Definition of Activity

- The installation of drains, gullies, inspection chambers, interception pits, piped ditches, grips, kerbed offsets, ditches, soakaways and ancillary works;
- Excavation and repair of highway drainage systems to remove obstructions to flow that cannot be removed by drainage cleaning;
- Adjustment to level of ironwork for which the highway authority is responsible together with the replacement of damaged or unsatisfactory ironwork. Most ironwork will comprise apparatus installed by a statutory undertaker and any such defective ironwork will require to be remedied in accordance with the relevant procedures of the NRSWA 1991;
- Exploratory excavation and testing to investigate third party claims of damage and nuisance arising from allegedly defective highway drainage systems.

5.4.6.2 Policy

The County Council will carry out drainage improvements and repairs consistent with meeting the objectives for maintenance and improvement of highway drainage system, having regard to the availability of resources and the Priority Rating System for Drainage Works (Table 5.4.1).

5.4.6.3 Operational Standards for Drainage Repairs are detailed in Table 5.4.3.

TABLE 5.4.3 : OPERATIONAL STANDARDS FOR DRAINAGE IMPROVEMENT AND REPAIR			
Feature	**LCC Standards**	**UK CPHMM Standard**	**Notes**
Ironwork	Manhole and inspection chamber covers in carriageways shall be installed to a tolerance of +/-6mm to the surrounding level.	Manhole and inspection chamber covers in carriageways shall be installed to a tolerance of +/- 5mm to the surrounding level	The LCC Standard adopted from the New Roads and Street Works Act Specification for the Reinstatement of Openings in Highways 2nd Ed. 2002
	Gully frames and gratings shall be installed to a level flush or not exceeding 10mm lower than the adjacent paved surface	Gully frames and gratings shall be installed to a level flush or not exceeding 10mm lower than the adjacent paved carriageway	Previous LCC standard equivalent to flush or not exceeding 12mm
	Investigatory levels for adjustment of ironwork are identified in the LCC Code of Practice for Highway Safety Inspections.	Adjust when found to be greater than 20mm lower than the surrounding carriageway	Previous LCC standard was 20mm. New standard relates response times to severity, but limits vary from 20mm to 100mm
	Gully gratings with parallel bars shall be replaced where frame and grating is being adjusted for another purpose or where such a grating is found present in a designated cycle-lane.	No standard	
	New covers, frames and gratings shall be supplied and installed in accordance with the current edition of the Lancashire County Council Specification for Construction of Estate Roads as the minimum standard.	No standard	The specified ironwork is the minimum standard considered acceptable in terms of skid resistance durability and strength.

5.4.7 Review of Highway Drainage

5.4.7.1 The highway inventory contains a record of highway gullies and surface drainage features, together with a partial record of highway culverts. However, very few records of piped drainage systems and culverts exist and although adoption plans record new drainage systems, other than for identified problem areas, it is unlikely to be cost effective to survey existing systems for record purposes.

5.4.7.2 Recent case law reinforces the duty of care placed upon highway authorities to take measures to prevent flooding arising from inadequate highway culverts. The maintenance liability is likely to increase given the age of much of the County's land drainage infrastructure and the very low levels of maintenance carried out on land drainage systems and watercourses upstream of highway culverts.

5.4.7.3 The effects of increasing frequency and severity of rainfall; increased risk of litigation involving large compensation claims and the ageing highway drainage infrastructure, combine to increase the maintenance priority of highway drainage. These effects will be taken into account during the future allocation of resources.

5.4.7.4 The Council will develop a formal policy relating to the recording, prioritising and monitoring of outstanding problems e.g. areas prone to flooding (see the Highway Maintenance Strategy and Improvement Plan).

5.4.7.5 The increased risk of flooding can be mitigated by the use of Sustainable Drainage Systems. The County Council will accept the use of S.D.S on new developments in appropriate locations where existing sewers and watercourses do not have adequate capacity to accept additional surface water run-off and there is no alternative engineering solution, subject to developers meeting the costs of future maintenance via payment of commuted sums where appropriate. Some schemes have been introduced and are currently monitored via ad hoc visual inspection.

5.5 Highway Embankments and Cuttings

5.5.1 Objectives for Maintenance and Improvement of Highway Embankments and Cuttings

5.5.1.1 To maintain cuttings and embankments in a condition such as will ensure their stability and:

- Minimise the risk of loose material falling such as to injure users of the highway or cause damage to the highway or private property;
- Minimise the risk of interruption to use of the highway;
- To provide for easier or more cost-effective maintenance.

5.5.1.2 To maintain cuttings and embankments in a manner consistent with the principles of sustainability, in particular:

- To minimise damage to, or loss of, habitat;
- To prevent interruption of, or pollution to, watercourses;
- To maximise the use of recycled materials in maintenance works.

5.5.2 Service Inspections for Highway Embankments and Cuttings

5.5.2.1 The UK CPHMM recommends that authorities should maintain records of locations where slips and rock-falls have occurred and should establish an inspection and maintenance regime based on a local risk assessment. In higher risk locations, or where ground conditions are difficult, specialist geotechnical advice should be obtained. In general, the Council does not undertake service inspections for highway earthworks, but a number of sites, which are subject to gradual but progressive movement, are monitored by inspection or movement monitoring devices.

5.5.2.2 Debris on a footway or in a traffic lane or other defect likely to be a hazard to users of the highway would be reportable under the LCC Code of Practice for Highways Safety Inspections and would prompt a follow-up detailed inspection. However, highway embankments and cuttings are not, in themselves, an inspected feature.

5.5.2.3 In addition to Safety Inspections, detailed inspections will be prompted by a number of circumstances:

- Inspections carried out as part of a NRSWA inspection;
- Ad-hoc inspections required by perceived conditions;
- Investigatory inspection prompted by service user enquiry;
- Investigatory inspection prompted by feedback from routine maintenance operations.

5.5.3 Maintenance Category for Highway Embankments and Cuttings

Remedial Earthworks.

5.5.4 Priority Rating for Highway Embankments and Cuttings

5.5.4.1 Earthworks do not normally deteriorate in a predictable manner; therefore it is difficult to assess need in advance. Need is normally established by reports of earthworks that are becoming unstable or reported sudden collapses.

5.5.4.2 For slopes exhibiting signs of slow movement, e.g. by minor cracking or deformation of paved surfaces, a site investigation will be commissioned by the Asset Management Group.

5.5.4.3 Schemes, once identified, will be categorised and prioritised having regard to the criteria detailed in Table 5.5.1.

TABLE 5.5.1 : PRIORITY FACTORS FOR HIGHWAY EMBANKMENTS AND CUTTINGS	
Criteria	**Feature**
Type of Earthworks	Highway Cutting
	Highway Embankment
	Land outside highway
Failure Risk	Collapsed
	Imminent danger of collapse
	Moderate risk of collapse
	Gradual movement expected
Effect of Failure	Danger to highway users.
	Endangered property
	Damage to fabric of paved areas or highway drainage systems
	Damage to Statutory Undertakers apparatus
	Interruption to use of the highway.
	Damage to “unoccupied” private land
	Disruption to public transport services
Financial	Costs of Damage
	Scheme Costs
	Risk of Litigation
	Impact on alternative routes if highway use interrupted
Repair Options	Repair
	Temporary Diversion (on or off affected route)
	Monitor

5.5.5 Operational Policy and Standards for Remedial Earthworks

5.5.5.1 Definition of Activity

The repair of earth slips and the provision of any necessary associated drainage and new retaining systems, including anchors, walls, reinforced earth, soil stabilisation, site investigation, movement monitoring and similar works.

5.5.5.2 Limitations on Activity

Works involving the construction of new retaining systems require Technical Approval to be issued by the Environment Directorate: Chief Engineer (Bridges).

5.5.5.3 Policy

- Having regard to the availability of resources and the Priority Rating Criteria (Table 5.5.1), any necessary minor Remedial Earthworks will be undertaken consistent with meeting the objectives for maintenance and improvement of highway embankments and cuttings, and more major works will be assessed for inclusion in a special maintenance or improvement programme;

- Where practicable, recycled materials will be used in repair works for Remedial Earthworks.

5.5.5.4 **Operational Standards**

There are no stated operational standards for remedial earthworks. In general problems will be remedied as soon as practicable in accordance with the stated Policy (5.5.5.3).

5.6 Highway Verges, Landscaped Areas and Trees

5.6.1 Objectives for Maintenance of Highway Verges, Landscaped Areas and Trees

5.6.1.1 To maintain safety for users of the highway, by reducing the risk of:

- Obstruction to visibility sight lines at junctions and bends;
- Obstruction to legibility of traffic signs;
- Root growth causing surface disruption;
- Trees or branches falling onto the highway.
- Vegetation or weed growth encroaching onto a carriageway, footway or cycle route such as would cause a danger or nuisance to users of the highway, in particular pedestrians, cyclists and buses that can be adversely affected by overhanging vegetation.

5.6.1.2 To maintain safety for pedestrians by providing a refuge where no footway exists.

5.6.1.3 To prevent trees which are the responsibility of the highway authority from causing damage or unlawful interference to private property and utilities apparatus.

5.6.1.4 To control weeds:

- To prevent damage to the structure of the highway;
- To prevent the growth and establishment of weeds as required by both the Weeds Act 1959 and the Wildlife and Countryside Act 1981 (Japanese Knotweed, Giant Hogweed, Curled Dock, Creeping Thistle, Spear Thistle, Wild Oats, Common Ragwort, Broad Leaved Dock).

5.6.1.5 To maintain Highway Verges, Landscaped Areas and Trees in a manner consistent with the principles of sustainability, in particular:

- To minimise damage to, or loss of, habitat;
- To prevent interruption of, or pollution to, watercourses;
- To encourage biodiversity.

5.6.2 **Service Inspections for Highway Verges, Landscaped Areas and Trees**

5.6.2.1 The UK CPHMM recommends that all highway trees should ideally have an arboricultural inspection every 5 years or more frequently where recommended by an arboriculturalist. The County Council has started on a programme of tree inspections which began with the entire classified road network in 2008/9. Inspections on the unclassified road network will be completed, in stages, over the coming three years.

5.6.2.2 Badly damaged verges (where likely to be subject to pedestrian movements) are recorded under Highways Safety Inspections as are a number of defects relating to overgrown or unstable trees. However, Safety Inspections are not generally undertaken by inspectors competent to assess the condition and stability of trees and branches. Detailed inspections by an arboriculturalist will be undertaken on receipt of a defect report.

5.6.3 **Maintenance Categories for Highway Verges, Landscaped Areas and Trees**

- Grass Cutting;
- Verge Maintenance;
- Weed Control.

5.6.4 **Operational Policy and Standards for Grass Cutting**

5.6.4.1 **Definition of Activity**

The cyclical cutting of grass on highway verges as necessary to secure safe conditions for users of the highway. Some District Councils may supplement highway authority standards to varying degrees as part of their amenity and public health powers. Following the termination of the Lancashire Highways Partnership in 2006, Residual Highway Agreements were established with District Councils to enable them to undertake a specified number of functions on the highway, including grass cutting. These agreements will continue and are currently being re-negotiated. Where LCC carry out all grass cutting but the District request a higher standard, they must agree the additional standards with the County Council and provide appropriate funding to cover the cost of the extra work.

5.6.4.2 **Policy**

Grass on highway verges will be cut, in accordance with operational standards consistent with the objectives for Maintenance and Improvement of Highway Verges, Landscaped Areas and Trees, to

ensure that growth does not present a road safety hazard to any class of road user.

5.6.4.3 Operational Standards for Grass Cutting are detailed in Table 5.6.1.

5.6.5 Operational Policy and Standards for Verge Maintenance

5.6.5.1 Definition of Activity

- The management of foliage within or immediately adjoining the highway. The main functions are removal of epicormic growth, pruning, pollarding and the removal of dangerous overgrowth, branches, roots or trees presenting a hazard to road users or adjoining property and to Utility Companies apparatus;
- Routine operations that may be required to keep the highway verge, central reservations, cutting and embankment slopes in a safe and tidy condition;
- Routine operations that may be required to preserve the effective width of the carriageway or footway.

5.6.5.2 Policy

Subject to the availability of resources the County Council will carry out the minimum amount of verge maintenance consistent with meeting the objectives for maintenance of Highway Verges, Landscaped Areas and Trees.

5.6.5.3 Operational Standards for Verge Maintenance are detailed in Table 5.6.2.

TABLE 5.6.1 : OPERATIONAL STANDARDS FOR GRASS CUTTING				
Category	**Feature**	**LCC Standards**	**UK CPHMM Standard**	**Notes**
Urban		Target 5 cuts per year to maintain growth not exceeding 150 mm height. If grass is allowed to grow longer than this then it becomes necessary to remove cuttings. Furthermore, long grass can conceal debris which can become a safety problem if left unattended	No prescriptive standard.	Bio-diversity management regime (as applicable) overrides standards. Omit bulb planted areas until foliage dies back.
Rural verge > 3m width	Zone A 1m swathe adjacent to carriageway	Cut twice per year. (3rd cut may be required on Category 2/3A/3B roads dependent upon growth).	1m safety swathe, target 2 cuts per year dependent upon growth. Remainder cut every 3 years unless allowed to vegetate as policy decision.	Sight lines at junctions and on inside of bends should be cut as described for 1m safety swathe All cuttings left in-situ. Bio-diversity management regimes (as applicable) override standards. Omit bulb planted areas until foliage dies back. Policy for rural mowing to be reviewed having regard to safety implications (see HM Strategy and Improvement Plan)
	Zone C 1m zone at rear of verge	Uncut except for any necessary winter thinning and coppicing. Cut as required to control noxious weeds.		
	Zone B Remainder of verge	Single cut in late August or September concurrent with 2nd Zone A if 2 cuts pa or 3rd Zone A if 3 cuts pa. This single cut must not take place earlier than late August		
Rural verge < 3m width	Zone A 1m swathe adjacent to carriageway	Cut as Zone A above		
	Zone C Remainder of verge	Cut as Zone C above		
Rural verge between footway & carriageway > 2m width	Zone A 1m safety swathe and 600mm margin either side of footway	Cut as Zone A above		
	Zone B Intervening mid verge	Cut as Zone B above		
	Zone C Remainder of verge	Cut as Zone C above		
Rural verge between footway & carriageway < 2m width	Zone A Full width intervening verge and 600mm margin at rear of footway	Cut as Zone A above		

<table>
<tr><th colspan="3">TABLE 5.6.2 : OPERATIONAL STANDARDS FOR VERGE MAINTENANCE</th></tr>
<tr><th>Feature</th><th>LCC Standards</th><th>Notes</th></tr>
<tr><td rowspan="3">Trees and hedges vested in highway authority</td><td>Trees and hedges will be pruned or pollarded as required on receipt of inspection report or complaints.</td><td rowspan="3">Work should only be undertaken on highway safety grounds, where there is interference with overhead services, or where structural damage to private property or the highway is involved. Work will not normally be undertaken to improve the quantity and quality of light falling upon a property or television reception.

Removal of trees or tree roots to improve surface regularity of a footway should only be undertaken following an assessment and cost evaluation of alternative engineering solutions

Significant pruning or removal of trees shall only be undertaken following receipt of arboricultural advice (Except where there is a perceived danger of imminent collapse). Where practicable, the District Council shall be informed prior to carrying out any work on a tree that is the subject of a Tree Preservation Order or lies within a Conservation Area. Adjacent property owners, the Parish Council and local elected members shall be informed before work is undertaken.

Any action be undertaken in accordance with the requirements of the EC Nesting Birds Directive, the Wildlife and Countryside Act 1981 and the Hedgerow Regulations 1997.

Policies relating to replacement of highway trees are detailed in supporting documentation

Hedge clippings shall be removed from paved surfaces, in particular those used by cyclists</td></tr>
<tr><td>Trees and hedges will be removed where required due to disease, instability or unsuitability of location on receipt of inspection report or complaints.</td></tr>
<tr><td>Trim seasonal growth on hedges once a year on rural roads in the rare circumstances where hedges vest in highway authority, or as required following the receipt of inspection reports or complaints, to maintain visibility at junctions, bends, central reserve cross-overs etc.</td></tr>
<tr><td>Trees and hedges in other ownership</td><td>Regulatory action shall be undertaken as required to maintain visibility, prevent obstruction of the highway and to obviate any danger from falling trees or branches.

Consideration will be given to undertaking works at highway authority expense where cost effective by comparison with enforcement action.</td><td>The owner of trees or occupier of land where defective trees are situated will be warned and notice served in accordance with the provisions of S.154 of the Highways Act 1980.

In exceptional circumstances the highway authority or local authority may execute work without notice to remove a danger to users of the highway, but will be unable to recover its costs.

Hedges may not be removed without satisfying the requirements of the Hedgerow Regulations 1997.</td></tr>
<tr><td>Landscaping areas vested in highway authority</td><td>Minimum works necessary to maintain visibility or prevent obstruction to the highway.</td><td>New landscaping maintained under contract until established</td></tr>
</table>

TABLE 5.6.2 : OPERATIONAL STANDARDS FOR VERGE MAINTENANCE		
Feature	**LCC Standards**	**Notes**
Siding	Siding on carriageways will not normally be undertaken except when needed as preparatory work for surface dressing, renewal of road markings, etc.	
	Siding to footways will be undertaken as necessary to preserve the footway width, following the receipt of inspection reports or complaints.	
Verge repairs	Undertaken as required following the receipt of inspection reports or complaints.	

5.6.5.4 **Limitations on Activity**

- Traditionally there has been a presumption in law that trees within the highway that existed before dedication of the highway and self-sown trees that have become established since dedication of the highway are vested in the owner of the subsoil. However, it appears that the judgement of the Court of Appeal in the case of Hurst -v- Hampshire County Council (1997) indicates that the responsibility for all trees in a highway maintainable at public expense rests with the highway authority. However, there may be occasions when, given the known history of a tree and the road adoption, it may be advisable to seek specific legal advice;
- The County Council's policy for the planting of new or replacement highway trees is summarised in supporting documentation "Trees Policy Summary".

5.6.6 **Operational Policy and Standards for Weed Control**

5.6.6.1 **Definition of Activity**

The control and/or removal of weeds on the highway by chemical, mechanical or other means.

5.6.6.2 **Policies for Weed Control**

The weed control policy of the County Council fulfils three functions:

i) Compliance with the statutory provisions of the Weeds Act 1959 to control the spread of Curied Dock, Broad Leafed Dock, Creeping Thistle, Spear Thistle and Ragwort and the specific requirements of

the Wildlife and Countryside Act 1981 in relation to Giant Hogweed and Japanese Knotweed;

ii) Where weed growth is seen to be physically damaging the fabric of the highway or presents a hazard, treatment should be carried out on these weeds only;

iii) Where weed growth is having a detrimental effect on the safety of the highway.

5.6.6.3 **Operational Standards for Weed Control**

- The UK CPHMM does not specify prescriptive operational standards but suggests that weed treatment should be undertaken according to traffic and pedestrian usage and to a standard that takes account of local concerns. The County Council's Policy has been developed, having regard to limitations on maintenance resources, to meet its statutory duty but does not meet the UK CPHMM standards;
- Physical and chemical (pesticide) weed control methods will be used on highways where they are practical and cost effective. Innovative methods of weed control will be tested whenever possible to determine their suitability for highway use and with the aim of undertaking an integrated weed treatment regime;
- Where possible weed treatment work will be integrated into a co-ordinated programme with the District Council's highway sweeping, to remove living and treated weeds from carriageways, cycleways and footways. Arrangements are specified in the County Council Residual Agreements with Districts.

5.6.6.4 Information on the control of Ragwort may be obtained from the Code of Practice on How to Prevent the Spread of Ragwort (DEFRA 2004).

5.6.6.5 **Chemicals for Weed Control**

- All weed spraying should be carried out in accordance with the Control of Pesticides Regulations 1986. Only approved pesticides may be used, these are chemicals listed in the 'Blue Book' entitled *Pesticides Approved under the Control of Pesticides Regulation 1986*;
- For highway surface weed killing operations, a translocated non-residual contact herbicide should be used. Currently the only weed killer 'available' for use on the paved highway, which conforms with the Health and Safety Commission's Code of Practice and to the Environment Agency's requirements, is Glyphosate. Glyphosate has no residual qualities and will only affect plants where there is direct contact. This results in an increase in the number of applications necessary to obtain effective control. Glyphosate is

only effective on actively growing plants, which restricts the time period over which the control can be achieved. New weed growth occurs in spring and autumn, so for effective weed control, there needs to be at least two applications with the possibility of a third application in mid-Summer;

- For the sterilisation of surfaces prior to construction work, an approved granular residual herbicide which contains 6.75% Dicholobenil as the active ingredient shall be spread at a rate of 175 kg per ha, or as directed by the manufacturer. The use of chemicals such as Dicholobenil is approved by the Environment Agency because, provided that they are used in accordance with the manufacturer's instructions, any subsequent run-off will not be detrimental to watercourses.

5.7 Fences, Guardrails and Safety Barriers

5.7.1 Objectives for Maintenance of Fences, Guardrails and Safety Barriers

5.7.1.1 To maintain fences, guardrails and safety barriers in a sufficiently sound structural condition to serve their function and not be dangerous to road users or pedestrians.

5.7.1.2 To carry out minor improvements for fences, guardrails and safety barriers to promote reductions in the frequency and severity of road traffic accidents, in particular:

- To direct vehicles that are out of control and have left the carriageway away from hazards but not back into the path of other vehicles on the highway;
- To reduce the consequences of loss of vehicle control;
- To prevent vehicles colliding with large signs, retaining walls, the ends of bridge and retaining wall parapets, and bridge abutments and piers at specific locations;
- To prevent vehicles crossing the central reservation on certain dual carriageways;
- To provide protection for vehicles, cyclists and pedestrians on high embankments;
- To provide protection for pedestrians at locations of possible pedestrian/vehicle conflict;
- To direct pedestrians towards more suitable crossing points.

5.7.1.3 To maintain fences, guardrails and safety barriers in a manner consistent with the principles of sustainability, in particular:

- Having regard to their prominence in the "streetscape" and their potential for impact on the visual environment;

- Having regard for the need to source materials from appropriate sources.

5.7.2 **Service Inspections for Fences, Guardrails and Safety Barriers**

5.7.2.1 The UK CPHMM recommends that in addition to the operational standards detailed in Table 5.7.1, fences, guardrails and environmental barriers for which the authority is responsible should be inspected for integrity and shockproof qualities where appropriate, as part of service inspections for carriageways, footways and cycleways.

5.7.2.2 Damage, bad corrosion, loose or missing panels and other significant defects would be reportable under the LCC Code of Practice for Highways Safety Inspections and would prompt a follow-up detailed inspection. However, the Council does not undertake formal Service Inspections on all-purpose County Roads (see Section 4.1).

5.7.2.3 In addition to Safety Inspections, detailed inspections will be prompted by a number of circumstances:

- Inspections carried out as part of a NRSWA inspection;
- Ad-hoc inspections required by perceived conditions;
- Investigatory inspection prompted by service user enquiry;
- Investigatory inspection prompted by feedback from routine maintenance.

5.7.3 **Maintenance Categories for Fences, Guardrails and Safety Barriers**

- Boundary fences;
- Safety fences.

5.7.4 **Priority Rating for Fences, Guardrails and Safety Barriers**

5.7.4.1 Resources for the maintenance of fences, guardrails and barriers are limited. The allocation of resources will be based on an analysis of the following issues and the Operational Policies for Fences, Guardrails and Barriers:

- Is the installation still required having regard to network safety and current policy/standards? The LCC Area Manager should be consulted for advice where appropriate;
- Does the existing installation comply with current standards in terms of materials, fixings, mounting height (see 5.7.4.2);
- The demands of reactive maintenance to existing installations will normally take precedence over programmed maintenance work and minor improvements;

- Individual projects exceeding the financial threshold for Special Maintenance schemes will be assessed for inclusion in the Special Maintenance programme.

5.7.4.2 The specified limits of the mounting heights for the various forms of safety fence, outside which the barrier should be considered for corrective action, are as follows:

i) Tensioned Corrugated Beam, Open Box Beam and Rectangular Hollow Section Safety Fences – 535 mm to 685mm.

ii) Untensioned Corrugated Beam Safety Fence:

- 500 mm to 560 mm to the centre of the beam (when the safety fence was erected to a nominal height of 530 mm to the centre of the beam);
- 535 mm to 685 mm to the centre of the beam (when the safety fence was erected to a nominal height of 610 mm to the centre of the beam).

iii) Inclined Tensioned Corrugated Beam with Off-Set Brackets – 655mm to 715 mm to the top edge of the beam.

iv) Wire Rope Safety Fence – 575 mm to 595 mm to the centre of the upper pair.

5.7.5 Operational Policy and Standards for Fences, Guardrails and Safety Barriers

5.7.5.1 Definition of Activity

- The maintenance and replacement of existing safety fencing, pedestrian guardrails, boundary fencing and walls (see 5.7.5.2), including painting and cleaning;
- Minor improvements to fences, guardrails and safety barriers.

5.7.5.2 Limitations on Activity

- Highway boundary fences are presumed to be the responsibility of the adjoining landowner unless there is evidence to the contrary;
- Highway fencing and barriers are provided for the safety of users of the highway or to delineate the extent of the highway. The highway authority does not have a duty to prevent livestock from straying onto the highway, though where the highway authority maintains a boundary fence it shall be maintained as stock proof fencing where appropriate;

- Safety fences to be attached to bridge or retaining wall parapets, or mounted on or adjacent to bridges or retaining walls require the consent of the Environment Directorate: Chief Engineer (Bridges).

5.7.5.3 **Policies for Fences, Guardrails and Safety Barriers**

- Subject to the availability of resources the County Council will undertake works consistent with meeting the objectives for maintenance of fences, guardrails and safety barriers;
- Timber posts will not be used for replacement safety fencing and existing safety fences incorporating timber posts will be eventually be replaced or removed if appropriate;
- Maintenance work will not normally be undertaken on fences and barriers where mounting heights have been rendered inadequate by resurfacing and/or rekerbing. Such defective installations should be referred to the Area Manager for consideration;
- Safety fences and guardrails will not normally be replaced only on the grounds that they do not comply with current design standards, provided that they can be shown to have complied with design standards that applied at the time of first installation;
- Where timber fencing is repaired the timbers will be from an approved supplier properly treated and from a sustainable source;
- Works associated with reconstruction, overlay and resurfacing will be incorporated into those schemes;
- District Councils, Parish Councils and the occupiers of premises fronting the relevant section of highway will be consulted prior to the installation or removal of safety barriers and guardrails.

5.7.5.4 Operational Standards for Fences, Guardrails and Safety Barriers are detailed in Table 5.7.1.

TABLE 5.7.1 : OPERATIONAL STANDARDS FOR FENCES, GUARDRAILS AND SAFETY BARRIERS				
Category	**Feature**	**LCC Standards**	**UK CPHMM Standard**	**Notes**
Steel and wire rope safety fences and guardrails	General Condition	Detailed inspections to be undertaken following receipt of any defect report from Highway Safety Inspection.	Safety barriers to be inspected with respect to mounting height and integrity at not less than 5 year intervals. Pedestrian safety fences and guardrails inspected in respect of integrity and stock proof qualities at not less than 2 year interval	Inspection policy to be reviewed having regard to safety implications (see HM Strategy and Improvement Plan) All safety barriers and fences adjacent to railway lines to be inspected at intervals determined following a risk assessment.
	Tensioned Barriers		Tensioning bolts on tensioned barriers should checked and reset to the correct torque every 3 years.	
	Damage to Safety Fences and Guardrail	Make safe dangerous defects within 24 hours and effect permanent repair as soon as possible thereafter.	Make safe within 24 hours unless damage is superficial with no loss of integrity to barrier	
	Painting	Paint as required subject to availability of resources	Paint as required	Lack of resources inhibits full compliance with recommendations of the CPHMM
	Cleaning	Clean as required only where provided with chevron marking	Clean as required, except where also provided with chevron markings in which case clean as standards for traffic signs	
Timber boundary fencing	Repairs and timber treatment	Undertake works as required.	No specific standard.	Timber to be from an approved supplier properly treated and from a sustainable source.

5.8 Non-Illuminated Traffic Signs and Bollards

5.8.1 Objectives for Maintenance of Traffic Signs and Bollards

5.8.1.1 To promote the safe and efficient movement for all road users around the network by:

- Ensuring traffic signs are legible and visible as far as possible at all times, in relation to the road use and traffic speeds;
- Giving effect to new and existing traffic regulation orders;
- Preventing pavement parking or footway over-riding where the use of enforcement or regulatory powers is impractical, ineffective or undesirable;
- Providing new signs as necessary to assist achieving the core objectives of customer service, network safety, network serviceability and network sustainability.

5.8.1.2 To provide and maintain traffic signs and bollards in a manner consistent with the principles of sustainability, in particular:

- By the removal of obsolete signs and posts;
- By the positioning of new signs, where practical, in a manner which will not result in an increase in “street clutter”;
- By the use, where possible, of recycled materials in the manufacture of equipment;
- By the routeing of vehicles onto appropriate sections of the road network.

5.8.2 Service Inspections for Traffic Signs and Bollards

5.8.2.1 The UK CPHMM recommends that in addition to the operational standards detailed in Table 5.8.1 non-illuminated traffic signs should be inspected at least every two years in daylight and at night after cleaning for degradation of colour, retro-reflectivity, deteriorating fittings, legibility and average surface luminance.

5.8.2.2 Damaged or missing equipment, obscured signs, or other significant defects, would be reportable under the LCC Code of Practice for Highways Safety Inspections and would prompt a follow-up detailed inspection. However, the Council does not undertake formal Service Inspections on all-purpose County Roads (see Section 4.1).

5.8.2.3 In addition to Safety Inspections, detailed inspections will be prompted by a number of circumstances:

- Inspections carried out as part of a NRSWA inspection;
- Ad-hoc inspections required by perceived conditions;
- Investigatory inspection prompted by service user enquiry;

- Investigatory inspection prompted by feedback from routine maintenance operations.

5.8.3 **Maintenance Categories for Traffic Signs and Bollards**

Traffic Signs and Bollards.

5.8.4 **Priority Rating for Traffic Signs and Bollards**

5.8.4.1 The allocation of maintenance resources will be based on an evaluation of the following criteria:

- Warning and regulatory signs shall be given priority over other signs;
- The demands of reactive maintenance to existing installations will normally take precedence over programmed maintenance and minor improvements;
- The cost effectiveness of the installation of bollards to prevent over-riding of footways and verges in relation to the actual damage being caused to highway surfaces.

5.8.4.2 In determining the priority for new signs and bollards, the following priorities will apply:

- Sites where traffic regulation orders have been approved in accordance with the County Council's policy for categorisation of traffic regulation orders;
- Sites where there is an existing road traffic accident problem that can be alleviated by improved signing;
- Sites where there are demonstrable road safety benefits likely to be achieved by improved signing;
- Proposals for new signing to improve misleading signing or to remove causes of confusion to road users;
- Proposals for new signing that will improve the operation of the network;
- Proposals for new signing that would provide a positive benefit to commerce, industry or tourism subject to the limitations on activity detailed below;
- Is the installation still required having regard to network safety and current policies/standards? The LCC Area Manager should be consulted for advice where appropriate;
- Does the existing installation comply with current standards in terms of materials, fixings, mounting height etc? The LCC Area Manager should be consulted for advice where appropriate.

5.8.5 **Definition of Activity for Traffic Signs and Bollards**

5.8.5.1 The repair, replacement and cleaning of non-illuminated signs and bollards.

5.8.5.2 The removal of obsolete equipment including reinstatement of surfaces etc.

5.8.5.3 The provision of new signs and bollards.

5.8.6 **Policy for Traffic Signs and Bollards**

5.8.6.1 Subject to the availability of resources and an assessment of priorities the County Council will undertake any necessary works consistent with meeting the objectives for maintenance of traffic signs and bollards.

5.8.6.2 Signs will be erected in accordance with the Council's policy document The LCC Code Of Practice On Street Furniture to ensure that the positioning, design, size and mounting of signs is such that their environmental impact is kept to a minimum consistent with meeting the objectives for traffic signs and bollards.

5.8.6.3 Unauthorised signs, boundary signs, temporary signs, signs to new developments, "private" direction signs etc. will be regulated in accordance with the Council's policy document The LCC Code of Practice on the Control of the Placing of Items within the Highway.

5.8.6.4 Bollards manufactured from recycled plastic will be used unless there is an engineering reason for an alternative specification. In town centres, shopping areas and for new installation in conservation areas, alternative designs/materials may be specified where available at a cost comparable to recycled plastic. Where higher cost enhanced materials are specified for amenity purposes, District/Parish Councils will be expected to meet the extra-over installation and replacement costs of the enhanced specification.

5.8.6.5 Traffic Mirrors will not be permitted in urban areas or on roads subject to a speed limit of 30mph or less. Requests for traffic mirrors on other roads shall be referred to the Environment Directorate (Network Management). Traffic mirrors are not authorised signs under the Traffic Signs Regulations and General Directions and authorisation from the Highways Agency will be required in each instance.

5.8.7 **Limitations on Activity for Traffic Signs and Bollards**

5.8.7.1 Direction signs to individual retail, industrial and commercial premises will not normally be permitted.

5.8.7.2 Signs to non-commercial premises (e.g. Churches, Schools, Health Centres, Hospitals, etc.) will be permitted in certain circumstances subject to conditions.

- The applicant will be required to meet the estimated costs of the work;
- Premises with a frontage to a classified road will not normally be considered to require direction signs on the highway;
- The purpose of direction signing is to assist "strangers" to locate the premises. Accordingly, an application for a direction sign should be assessed with regard to the premise's potential to attract "new" visitors. For example, direction signing to a school may be appropriate for a school with significant community involvement, or a Church in a tourist area that may be expected to attract visitors from outside its normal congregation;
- Direction signs should not be permitted such as to encourage private vehicular trips to premises that have inappropriate access or parking arrangements;
- The provision of new signs will take into account existing signs on site and where undue clutter or confusion would result from the addition of a further sign, consideration will be given to replacing the entire assembly.

5.8.7.3 Further advice on private direction signs may be found in the Council's policy document "The Code of Practice on the Control of the Placing of Items within the Highway".

5.8.8 **Operational Standards for Traffic Signs and Bollards**

5.8.8.1 Operational standards for signs and bollards are detailed in Table 5.8.1.

5.8.9 **Review of Traffic Signs and Bollards**

5.8.9.1 The priority of sign maintenance for resource allocation will be affected by:

- The need to maintain the effectiveness of Local Safety Schemes and 20mph Zones that will increase the "traffic signs asset" as a proportion of total highway inventory.
- The requirement for TRO's to be signed at the required standard, following the introduction of Decriminalised Parking.

TABLE 5.8.1 : OPERATIONAL STANDARDS FOR TRAFFIC SIGNS AND BOLLARDS			
Feature	**LCC Standards**	**CPHMM Standard**	**Notes**
General Condition	Safety Inspections only	Inspected at least every two years in daylight and at night after cleaning for degradation of colour, retro-reflectivity, deteriorating fittings, legibility and average surface luminance.	
Cleaning	Reactive maintenance only following condition assessment by H/way Superintendent.	Clean as required and at least annually	
Brackets and fixings		Sign brackets, bolts, clips and fixings should be tightened and adjusted at two-yearly service inspection.	
Painting		Paint when required but not exceeding 10-year interval.	
Damaged Equipment	Damaged signs should be made safe within 24 hours. The speed of replacement and permanent repair will depend on degree of danger.	The following should be treated as Category 1 defects: • matters affecting the legality of important warning and regulatory signs; • damage, deterioration, or vandalism to signs and bollards leaving either the sign or situation to which it applies in a dangerous condition; • missing traffic cylinders across gaps in central reserve fence at emergency crossing points.	Departures from UK CPHMM standards to be risk-assessed (see HMP Appendices and HM Strategy and Improvement Plan)
Roundabout Blockwork Chevrons	Weedkill and clean as required to maintain effectiveness	Inspect and clean annually and treat routinely for weed growth.	

5.9 Road Markings and Studs

5.9.1 Objectives for Maintenance of Road Markings and Studs

5.9.1.1 To promote the safe and efficient movement for all road users around the network by:

- Keeping all markings and studs visible as far as possible at all times in relation to the road maintenance category;
- Maintaining road studs in a secure condition;
- Giving effect to new and existing traffic regulation orders;
- Maintaining the impact and effectiveness of traffic calming and traffic management schemes;
- Providing new markings as necessary to assist achieving the core objectives of customer service, network safety, network serviceability and network sustainability.

5.9.1.2 To provide and maintain road markings and studs in a manner consistent with the principles of sustainability, in particular:

- Supporting sustainable transport modes by providing traffic control and protection for vulnerable road user groups;
- Providing edge delineation to reduce edge damage;
- Promoting the movement of wheel tracking to reduce localised damage.

5.9.2 Service Inspections for Road Markings and Studs

5.9.2.1 The UK CPHMM recommends that in addition to the operational standards detailed in Table 5.9.2 thermoplastic road markings should be inspected at least every two years in daylight for wear, spread, colour, skid resistance and retro-reflectivity (inspection interval of one year for paint markings), and once per year in darkness for reflective conspicuity.

5.9.2.2 Loose or missing road studs or other significant defects, would be reportable under the LCC Code of Practice for Highways Safety Inspections and would prompt a follow-up detailed inspection. The Council does not undertake formal recorded Service Inspections on all-purpose County Roads (see Section 4.1). However, specific inspections are undertaken to determine work programmes for renewal of road markings and road studs and arrangements will be implemented to ensure these are undertaken and recorded in accordance with the principles of “Risk Management”.

5.9.3 Maintenance Categories for Road Markings and Studs

Road Markings.

5.9.4 Priority Rating for Road Markings and Studs

5.9.4.1 In determining the priority for new markings funded via highway maintenance allocations, the following priorities will apply:

- Sites where traffic regulation orders have been approved in accordance with the County Council's policy for categorisation of traffic regulation orders;
- Sites where there is an existing road traffic accident problem that can be alleviated by improved road markings;
- Sites where there are demonstrable road safety benefits likely to be achieved by improved road markings;
- Proposals for new markings to improve misleading markings or to remove causes of confusion to road users;
- Proposals for new markings that will improve the operation of the network.

5.9.4.2 Renewal of road markings will normally be prioritised in relation to the following criteria:

- The outcome of a site accident study indicating that improving the condition of road markings would contribute towards an improvement in road safety at the site;
- The operational standards detailed in Table 5.9.2;
- Works necessary on a higher category road in the road hierarchy will normally be given priority over works necessary on a lower category road.

5.9.4.3 The replacement of road markings after surfacing works shall be programmed in the following priority order:

- Stop lines, zebra crossings, signal controlled crossings, road hump markings. (MANDATORY MARKINGS);
- Give way markings (MANDATORY MARKINGS);
- Double white line systems, including any associated hatching, and School markings (MANDATORY MARKINGS);
- Mandatory cycle lanes and bus lanes (MANDATORY MARKINGS);
- Parking restrictions;
- Hazard centre lines, including any associated hatching and advisory cycle lanes;
- Centre lines and edge of carriageway markings;
- Other recorded markings.

5.9.4.4 The target maximum times for completion of road marking reinstatement works after resurfacing are detailed in the following Table 5.9.1. During resurfacing, "No Road Marking" boards should be displayed until all markings have been replaced:

TABLE 5.9.1 : TARGET MAXIMUM PERIOD FROM SURFACING WORK TO COMPLETION OF ROAD MARKINGS			
Marking	**Principal Roads**	**Other Classified Roads**	**Unclassified Roads**
Mandatory markings – white	1 week	1 week	1 week
School markings – yellow	1 week	1 week	1 week
Non mandatory – white	2 weeks	3 weeks	4 weeks
Other yellow markings	2 weeks	3 weeks	4 weeks

5.9.5 **Definition of Activity for Road Markings and Studs**

5.9.5.1 The maintenance and replacement of existing road markings and studs.

5.9.5.2 The maintenance and replacement of existing areas of coloured surface treatments (normally red), but excluding “anti-skid” surfacing, on existing traffic calming schemes.

5.9.5.3 Minor works to amend existing markings or to provide new markings, subject to the Policy for Road Markings and Studs and limitations on activity detailed below.

5.9.6 **Policy for Road Markings and Studs**

5.9.6.1 Subject to the availability of resources and an assessment of priorities the County Council will undertake any necessary maintenance works consistent with meeting the objectives for maintenance of road markings and studs.

5.9.6.2 New road markings funded via highway maintenance allocations may only be undertaken with the approval of the LCC Area Manager with the exception of the following permitted works:

- “Give Way” markings will be provided at all junctions where no other marking is provided on Strategic Routes, Main Distributors and Secondary Distributor roads;
- “Give Way” triangle markings will be laid in conjunction with “Give Way” warning signs on the approach to Strategic Routes and Main Distributor roads;
- At appropriate sites, the word “SLOW” may be used as an accident prevention measure in conjunction with the relevant warning sign indicating the particular hazard;

- School entrance markings will be provided outside school entrances used by pupils unless it is clearly inappropriate to do so;
- "Bus Stop" markings may be provided where necessary in urban areas where indiscriminate use of the carriageway for loading or waiting causes problems to bus operation. Prior to placing a new bus marking, properties affected by the proposal will be consulted;
- "H-bar" markings may be provided to protect access for disabled residents by preventing parking across private accesses or dropped kerbs intended to facilitate mobility for vulnerable footway users. H-bar markings may be provided in certain circumstances at other private accesses subject to the costs being met by the applicant (see 5.9.7.1 below).

5.9.7 **Limitations on Activity for Road Markings and Studs**

5.9.7.1 H-bar markings may be provided at private accesses to seek to prevent obstruction by parked vehicles subject to the standard charge being paid in advance by the applicant. The standard charge is contained in the County Council's Schedule of Highways Fees and Charges and is subject to annual review.

5.9.7.2 Warning messages such as "KEEP CLEAR" shall be used only in exceptional circumstances to prevent a slow moving queue of vehicles from blocking access/egress to an essential access e.g. fire and ambulance stations. Other than in very exceptional cases where general road safety may be affected, they are not to be used to discourage parking e.g. at private accesses.

5.9.8 **Operational Standards for Road Markings and Studs**

5.9.8.1 Operational Standards for Markings & Studs are detailed in Table 5.9.2.

5.9.9 **Review of Road Markings and Studs**

5.9.9.1 The priority of road marking and stud maintenance for resource allocation will be affected by:

- The need to maintain the effectiveness of Local Safety Schemes and 20mph Zones that will increase the "road marking asset" as a proportion of total highway inventory. In particular, the increasing use of coloured surface treatments on such schemes creates increased highway maintenance liability by virtue of deterioration under traffic loading and disturbance by structural maintenance operations;
- The requirement for TRO's to be signed at the required standard, following the introduction of Decriminalised Parking.

TABLE 5.9.2 : OPERATIONAL STANDARDS FOR ROAD MARKINGS AND STUDS				
Category	**Feature**	**LCC Standards**	**UK CPHMM Standard**	**Notes**
Road Marking Renewal	Strategic Routes	Renew when more than approximately 30% of marking area has become ineffective or worn away	Renew when more than approximately 30% of marking area has become ineffective or worn away	
	Main Distributors			
	Secondary Distributors	Renew when more than approximately 50% of marking area has become ineffective or worn away	No standard	
	Link Roads			
	Local Access			
Road Marking Replacement after Surfacing		As Section 5.9.4 and Table 5.9.1	STOP & GIVE WAY within 7 days, other mandatory within 14 days, remainder within 28 days	LCC standard exceeds CPHMM Standard
Road Studs	Replacement	Missing/defective studs to be replaced individually or by bulk change as required to achieve 90% reflective before winter period	Missing/defective studs to be replaced individually or by bulk change as required to achieve 90% reflective before winter period	Previous LCC standard for 80% to be reflective

5.10 Traffic Signals, Pedestrian and Cycle Crossings

5.10.1 It is intended that policies and operational standards for traffic signals, pedestrian and cycle crossings will be published in association with development of the Transport Asset Management Plan.

5.11 Regulatory Activities

5.11.1 Placing of Items in the Highway and Obstruction of the Highway

5.11.1.1 The Council's policies for regulating obstruction of the highway are contained in the LCC Code of Practice on the Control of Placing of Items within the Highway.

5.11.1.2 The LCC Code of Practice provides advice upon:

- Temporary Direction and Notice of Works signs;
- Unauthorised Signs and Displays of Goods;
- Advertising on Signs;
- Banners over the Highway;
- Neighbourhood Watch Signs;
- Landscaping in the Highway;
- Provision of Seats;
- Temporary Closures for Events;
- Security Cameras;
- Mobile Cafes in Lay-bys;
- Pavement Cafes.

5.11.1.3 Roadside Memorials

There is an increasing tendency for relatives and friends to place flowers and other tributes at the scene of fatal road accidents. There are several conflicting issues involved and differing views have been expressed.

Views in support of memorials include:

- The laying down of flowers can be an important part of the grieving procedure and people should be allowed to express their grief in this way;
- A memorial can act as a warning to road users of the possible dangers of the location.

The arguments against include:

- A memorial can create a hazard, distracting passing motorists;
- The placement and maintenance of memorials can be in itself a road safety risk;

- A religious memorial is best placed in a religious setting e.g. churchyard or cemetery;
- Memorials, plaques and signs placed on the highway, on a wall or existing street furniture may add to clutter;
- There are liability and insurance issues in the event of an accident occurring as a result of a driver being distracted;
- A memorial may interfere with routine maintenance such as grass cutting.

The development of a definitive policy is included in the Highway Maintenance Strategy and Improvement Plan.

5.11.2 **Builders Skips**

5.11.2.1 The placing of Builders Skips on the highway will be regulated in accordance with this Section and the following statutory and County Council Policy documents:

- Highways Act 1980 Sections 139 and 140;
- Road Traffic Regulations Act 1984 Section 65;
- Builders Skip (Markings) Regulations 1984 (SI 1984 No.1933);
- Traffic Signs Manual 1991 Chapter 8 Section 2.3.7.7/8 Appendix 2 & 3;
- The Local Authorities (Transport Charges) Regulations 1998;
- LCC (HC) Quality Management Procedure CM04.

5.11.2.2 **Requirements for Placement of Skips**

- Private Land - Preferred option, no permit required;
- Footway - Not normally permitted. A footway position may be permitted provided that the skip can be positioned such that a minimum 1.8 m. width of footway is retained for pedestrian passage. In exceptional circumstances a footway may be permitted to be obstructed where a safe pedestrian walkway can be provided in the carriageway. Any building works associated with the use of the skip must not be permitted to affect or obstruct any pedestrian route adjacent to the skip. A skip shall not be sited on a footway where damage to the footway would result;
- Highway Verge - Not normally permitted where there is a better alternative or where damage to verge or associated footway may result. Siting on the verge may be permitted where the skip owner undertakes, in writing, to meet the costs of reinstating any damage to the verge;
- Carriageway - See Section 5.11.2.3;
- Back Street or other highway – See Section 5.11.2.3.

5.11.2.3 **Placing of Skips on Carriageways**

i) Skips will normally be permitted on carriageways except where site circumstances are such as to require consideration, in conjunction with the local Police traffic liaison officer if appropriate, of special arrangements in respect of timing, positioning, traffic control measures, additional signing and guarding, or temporary traffic regulation orders. Such consideration may include granting consent following a documented risk assessment where alternative locations, traffic control or other special measures would cause excessive disruption to traffic or unreasonable difficulties for the skip hirer.

ii) Circumstances where a skip will not be permitted or only permitted subject to consideration of the need for special arrangements include:

- on a road defined as traffic sensitive for the purposes of the New Roads and Street Works Act 1991;
- on a road where there are double white lines or where parking is prohibited by a traffic regulation order;
- within 40 metres of traffic signals. This distance may be reduced after the exit of a traffic signal junction depending upon the geometry of the site, with an absolute minimum of 15 metres;
- within 40 metres or either extremity of a pedestrian refuge or traffic island located in the carriageway;
- within 15 metres of a road junction;
- on the brow of a hill or on a bend where the presence of the skip would create a danger to road users;
- in the controlled area of a pedestrian crossing or on zigzag markings in front of a school, ambulance or fire station;
- at a bus stop.

iii) Skips shall not be placed, without implementing appropriate additional traffic management measures, parking restrictions or other measures, in consultation with the highway authority and the police, on a carriageway where the lane-width available to traffic would be reduced below the absolute minimum safety standard of 3.0 metres for normal traffic, highway maintenance vehicles and emergency service vehicles.

iv) Where a permit is requested for a skip to be placed on a back street or other narrow highway used by the public, it may be expected that the skip will cause an obstruction and the arrangements will require to be discussed with the operator and other involved users including the District Council as refuse collection and street cleansing authority. In the case of works exceeding the recommended maximum duration, or where the siting of the skip would prevent

vehicular access to premises, the person undertaking the works should be advised to seek a temporary closure order or make alternative arrangements for carrying out the works.

5.11.2.4 **Applications for Permits for Builders Skips**

i) Section 139 of the Highways Act 1980 applies to highways, therefore including routes recorded on the Definitive Map of public rights of way. The County Council does not maintain records of privately maintainable highways, other than a few which are shown on the Definitive Map. Therefore permits should not be issued for private streets.

ii) Applications in the form described in supporting documents to this Plan "Regulatory Forms and Conditions" shall normally be made in writing, via fax or email and shall include a plan in all instances where the location cannot be precisely described by a textual description. For example, "outside property no XXX" may not be a sufficiently precise location in the case of a property with a long frontage to the street in question.

iii) Subject to the consent of the relevant LCC Area Manager's Office, telephoned applications may be accepted provided that a confirmatory application is submitted by the Applicant, for record purposes, by no later than 12.00 noon on the following working day.

iv) Applications in respect of a Trunk Road shall be referred to the relevant Managing Agent.

5.11.2.5 **Duration of Skip Permits**

i) For a front street a permit will be issued for a maximum period of 21 days after which time a new permit must be applied for.

ii) The highway authority may require a shorter duration, either in the interests of effective coordination of street works or in the interests of residential amenity and orderly use of the highway. Consent may be granted in appropriate circumstances for such permits to be extended, without additional charge, up to a maximum of 21 days.

iii) Where a skip is permitted to be placed on a back street, a permit will be issued for a maximum duration of 3 working days, taking into account any refuse collection requirements. In the case of works exceeding the recommended maximum duration the developer should be advised to seek a temporary closure order or make alternative arrangements for carrying out the works.

5.11.2.6 Issue of Permits for Builders Skips

i) Permits shall be issued only to the owner of the skip, which in normal circumstances will be the skip hire company. Section 139(11) defines circumstances where a long-term hirer would be defined as the owner of the skip, but these circumstances will not normally apply to skips placed on the highway. Notwithstanding the provisions of S139 (11) the highway authority will not normally grant a permit to a person who the authority considers does not have the resources to exercise sufficient control over the skip to be able to comply with the conditions specified in the permit or any directions issued under Section 140 of the Act.

ii) The Permit and Standard Condition and any Special Conditions shall be issued in the form described in supporting documents to this Plan "Regulatory Forms and Conditions".

iii) Permits will only be issued to persons who possess current Public Liability insurance as specified in the Schedule of Highways Fees and Charges.

iv) In giving consideration to an application the highway authority will consider the following criteria:

- The suitability of the applicant and the adequacy of the information provided in relation to positioning, insurance, arrangements for signing etc. and arrangements for dealing with out-of-hours problems;
- The status of the street and whether the consent of the highway authority is required;
- The suitability of the site having regard to the recommendations of this Plan and other relevant factors;
- Whether the positioning of the skip and the duration of the permit will conflict with local authority and statutory undertakers works programmes, or special events.

5.11.2.7 Charges for Consideration of Applications for Skip Permits

i) In accordance with The Local Authorities (Transport Charges) Regulations 1998 a charge will be made for the issue of each permit in accordance with the County Council's Schedule of Highways Fees and Charges, which is subject to annual review.

ii) No charge will be made in respect of extending a permit of duration less than 21 days up to a maximum aggregated duration of 21 days.

iii) Applicants may make payment with their application, but normally skip companies will be sent monthly invoices in respect of the aggregated charges payable by the company. Invoices will be generated in accordance with Lancashire County Council Environment Directorate arrangements for income from highways fees and charges.

5.11.2.8 **Unlawfully Placed Skips**

The ability of the highway authority to undertake enforcement action in respect of skips placed on the highway unlawfully is constrained by resource availability and competing priorities, but it will seek to act in accordance with the following procedures:

i) Where the highway authority identifies a skip placed on the highway without permission, but which is otherwise satisfactory in all respects, the authority will:

- notify the company of the incident in writing reminding the company of their legal liabilities and requesting a skip permit application, and;
- where an application is received issue a permit, and;
- include the permit with those to be charged to the company, and;
- notify the police of the incident for record purposes, and;
- record the incident and include photographic evidence if considered necessary (see also (c) below).

ii) Where the highway authority identifies a skip, placed on the highway, which is unsatisfactory, the authority will:

- if the skip is marked to clearly identify the company, notify the company of the defective situation via telephone and fax, requiring either that the defective situation be remedied or the skip removed within two hours (notification between 08:30 and 17:30 hours Monday to Saturday) or four hours at all other times including Sundays and Bank Holidays, and;
- notify the police of the incident, and;
- record the incident (see also (c) below);
- consider taking action under Section 140 of the Highways Act 1980 to obviate danger to the public;
- where the skip cannot be identified, arrange for the skip to be removed under Section 140 of the Highways Act 1980.

iii) Where a company is found to be repeatedly placing skips on the highway either without permission or not in accordance with a permit, the authority will advise the company that it will, in conjunction with the police, seek to instigate proceedings against

the company in accordance with the relevant provisions of Section 139 of the Highways Act 1980.

5.11.3 **Scaffolds and Hoardings**

5.11.3.1 The placing of scaffolds, other structures and hoardings on the highway will be regulated in accordance with this Section and the following statutory and County Council Policy documents:

- Highways Act 1980 Sections 169 (Scaffolding) and 172/173 (Hoardings);
- Disabled Persons Act 1981 Chapter 43;
- Traffic Signs Manual 1991 Chapter 8 Section 2.3.10;
- The Local Authorities (Transport Charges) Regulations 1998;
- LCC (HC) Quality Management Procedure CM05.

5.11.3.2 No part of any scaffold or hoarding shall project over the carriageway or within 0.5 metres of the kerb face at a height less than 5.7 metres above the road surface (see also 5.11.3.4 Abnormal Load Routes below). A clear 2.5 metres headroom shall be provided over any area open only to pedestrians. Please note many pedestrian areas also permit vehicular access for emergency services and delivery vehicles. In such circumstances a 5.7 metre clearance shall apply.

5.11.3.3 **Issue of Permits for Scaffolds and Hoardings**

- Permits shall be issued only to the person or company erecting the scaffold, structure or hoarding which, in normal circumstances, will be the scaffolding company;
- A permit shall be issued for a maximum duration of 12 weeks, after which time a new permit must be applied for;
- The Standard Form of Permit and Conditions and Application Form relating to the control of scaffolding etc on the highway are described in supporting documentation to this Plan “Regulatory Forms and Conditions”;
- In accordance with The Local Authorities (Transport Charges) Regulations 1998, a charge will be made in respect of each week the scaffold, structure or hoarding is positioned on the highway, in accordance with the County Council’s Schedule of Highways Fees and Charges, which is subject to annual review;
- A refusal of an application to dispense with the requirement to erect a hoarding under s172 of the Highways Act 1980 will be made by letter, but any notice of refusal must contain a reference to the applicants right to appeal under s172 (4).

5.11.3.4 Applications in respect of scaffolds to be attached to buildings or other structures arched over the highway shall be referred to the Environment Directorate: Group Engineer (Bridge Maintenance) –

Abnormal Loads Officer 01772 264477 to enable the potential impact on abnormal load routes to be considered prior to the permit being issued. As the transit of large loads may be carried out at short notice, certain routes throughout the county may be designated as high load routes. No cross road obstructions will be allowed below 7.5 metres above the carriageway on these routes. For further details of high load routes consult the Environment Director.

5.11.4 **Private Retaining Walls Near Streets**

5.11.4.1 Local authorities, i.e. District Councils, are empowered to act in accordance with the provisions of Section 167 of the Highways Act 1980 in respect of private retaining walls near a street where the wall is in such condition as to be liable to endanger persons using the street. Local authorities are also empowered to act pursuant to Sections 77 and 78 of the Building Act 1984 in respect of private walls and buildings considered dangerous. The Building Act empowers Local Authorities to carry out works at the property owner's expense to obviate danger to the public and these powers have traditionally been more widely used in respect of private retaining walls.

5.11.4.2 The Highway Authority, where S.167 powers have not been exercised by the Local Authority, may request the Local Authority to exercise the powers and the Highway Authority may act in default where the Local Authority refuse to comply with the request or fail to act within a reasonable time.

5.11.4.3 Section 167 applies to any length of a retaining wall (not being a wall for which the highway authority are responsible) any cross section of which is wholly or partly within 4 yards (3.66 metres) of a street and which is at any point of a greater height than 4 feet 6 inches (1.37 metres) above the level of the ground at the boundary of the street nearest that point. The Section does not apply to land owned a transport undertaking where the land is primarily used by them for the purpose of their undertaking.

5.11.4.4 For procedures to determine whether a wall is maintainable by the Highway Authority see Section 5.12 Highways Structures.

5.11.4.5 Where a private retaining wall is considered to be in such a condition as to be liable to endanger persons using a street, the following procedure will be adopted:

- If necessary, following a site inspection, work will be undertaken to make the site safe for highway users. Normally, such works will be the minimum necessary to obviate danger, but more extensive works e.g. the removal of debris, may be appropriate to alleviate obstruction and consequential congestion on more heavily trafficked routes;

- The relevant District Council will be requested to take action under the Building Act 1984 or Highways Act 1980 (Section 167) to require the owner of the wall to carry out works such as will remove the source of danger to users of the street. The District Council will be reminded that Section 167 applies to any reconstruction works undertaken pursuant to the Building Act 1984. The Environment Directorate: Group Engineer (County Bridges) requires to be informed of action undertaken in respect of private retaining walls near streets to enable a database of such structures to be maintained and updated;
- In the event that the District Council refuse to take action or fail to take action within a reasonable time, ownership of the wall will be established and the owner/occupier will be requested to take action via the issue of Standard Letter CM08-1 (LCC [HC] Quality Manual: County Maintenance);
- If no action is taken, the owner/occupier will be warned of possible legal action under Section 167 via the issue of Standard Letter CM08-2 (Rev.1) requiring repairs to be undertaken within 28 days;
- If no action is taken within the required period the Head of Legal Services will be requested, via the issue of Standard Letter CM08-03 (Rev.1), to serve notice in accordance with Section 167 of the Highways Act 1980.

5.11.5 **Vehicular Crossings**

5.11.5.1 The provision and construction of vehicular crossings will be regulated in accordance with this Section and Section 184 of the Highways Act 1980.

5.11.5.2 Residents have a common law right of access to a highway next to their property, though the formation of an access to a classified road requires planning consent pursuant to the Town and Country Planning Act (Section 55) and the Town and Country Planning (General Permitted Development) Order 1995 (Schedule 2 Part 2 Class B).

5.11.5.3 Section 184 applies to the owner or occupier of premises adjoining or having access to the highway that habitually takes or permits to be taken a mechanically propelled vehicle across a kerbed footway or a verge in the highway to or from those premises. The Act effectively requires the owner or occupier of premises to be responsible for the costs of providing a vehicular crossing to those premises and the highway authority are empowered to serve notice of their intention to execute works at the expense of the owner or occupier.

5.11.5.4 Maintenance funding is allocated for works to facilitate access for the mobility handicapped. Generally, however, this budget will be targeted at works of benefit to the wider community, e.g. dropped crossing points at junctions.

5.11.5.5 Vehicular crossings should, wherever possible, be constructed by contractors employed directly by LCC and therefore LCC should elect to undertake the works. In exceptional circumstances, LCC may allow a contractor employed by the applicant to carry out the works, in which case the Guidelines (VC1 Part 1), Application Form (VC1 Part 2), and Conditions (VC1 Part 3) must be used. NRSWA accreditation will be required and a supervision fee in accordance with current Schedule of Highway Fees and Charges must be applied.

5.11.5.6 In normal circumstances, on receipt of a request for a vehicle crossing the appropriate letter and acceptance form (VC2 for classified roads and VC3 for unclassified roads) must be used. It is recommended that a contingency sum equal to 5% of the estimated cost of the work is included in the quotation. (Please note that works resulting from a s184 notice require recovery of actual costs, and in these circumstances a contingency sum is not included) In considering the application officers should have regard to:

- The need to prevent damage to verge or footway;
- The need to ensure safe access and egress from the premises;
- The need to facilitate as far as possible the safe passage of highway users;
- Parking loss on street.

A minimum car parking depth of 4.8 metres is recommended unless local circumstances require otherwise. The design of the crossing is at the discretion of the County Council and estimates must include for reconstruction of the full width of the adopted area between the carriageway and the property.

5.11.5.7 On receipt of an acceptance letter and payment, the payment must be credited to the vehicular crossing income code of appropriate district budget. No cost over and above the original quotation should be recharged to the applicant (hence the 5% contingency sum) and any credit or debit balance should be netted off against the district budget.

5.11.5.8 Either individual orders or annual order, with interims, may be used for ordering works.

5.11.5.9 Crossings should normally be constructed within 1 month of the confirmed order and receipt of payment to the full value of the quotation.

5.11.5.10 **Vehicle Crossings During Footway Works**

Three months prior to the reconstruction of a footway the engineer responsible for a scheme must circulate a letter (VC4) to residents,

which informs them of the proposed works and gives them the opportunity to request a vehicle crossing. Where expressions of interest are received for a vehicle crossing then a letter (VC5 for classified roads and VC6 for unclassified roads) must be sent to the applicant giving an estimate of the additional cost, if any, and explaining the terms of the offer.

5.11.5.11 The recent policy statement on the provision of footway crossings during the complete reconstruction of footways on unclassified roads states that there will be no additional charge where there are no additional works and the property owner has made sufficient provision for parking. There should be a charge where less than complete reconstruction is proposed or additional works are required. A charge should also be made for the reconstruction of any areas of damaged footway which can reasonably be assumed to have been caused by the illegal crossing of the footway by the applicant.

5.11.5.12 On receipt of the acceptance letter and payment the engineer should proceed with the provision of the vehicle crossing only if he/she is satisfied of the intention of the applicant to provide the on-site works required for parking a vehicle. Other than in exceptional circumstances this will require some evidence of works on site.

5.11.5.13 **Illegal Crossings**

Where vehicles are found to be habitually crossing a kerbed footway or verge, a letter (VC7) must be sent to the owner or occupier of the property. If no progress is made as a result of the above letter then a notice under Section 184(1) (VC8) may be served on the owner or occupier of the property, indicating that it is the intention of the County Council to execute the works specified and recover the expenses incurred, or alternatively imposing reasonable conditions on the use of the crossing. If a person knowingly permits a footway or verge to be used in contravention of a notice under Section 184(1) then he/she is guilty of an offence. Further action must be taken in consultation with Legal Officers.

5.11.6 **Overhanging Vegetation, Dead or Diseased Trees and Hedges**

5.11.6.1 In respect of all highways, section 154 of the Highways Act 1980 gives competent authorities the power to serve notice on the owners of overhanging trees, hedges or shrubs or the occupier of the land on which they are growing. Where an overhanging tree hedge or shrub is identified to obstruct the passage of vehicles or pedestrians or obstructs or interferes with the view of drivers of vehicles, the County Council will implement the following procedure:

- Inspect site to confirm danger, obstruction and/or interference;

- If the risk of injury to a user of the highway is assessed as high, e.g. significant but intermittent encroachment into a cycle lane, cycle route or cycleway such that a cyclist may be unable to safely avoid the hazard, the highway authority will undertake corrective work at its own expense. Prior to undertaking the work, the highway authority will endeavour to notify the owner or occupier of the land of its intention to carry out the work;
- Establish ownership of the hedge, tree or shrub or, more usually, the identity of the occupier of the land on which it is growing;
- Advise the owner or occupier of the land via the issue of a letter in the form of Standard Letter CM10\1 (Rev.1), drawing their attention to the problem of the tree, hedge or shrub and requesting that it be cut back. If a tree is the subject of a Tree Preservation Order then the local Planning Authority must be advised at this stage, though the existence of a TPO would not prevent works necessary where a tree is imminently dangerous;
- If no action is taken within 14 days, the owner/occupier will be warned of possible legal action under Section 154 via the issue of a letter in the form of Standard Letter CM10\2 (Rev.1) requiring works to be undertaken within 14 days;
- If no action is taken within the required period, notice will be served in accordance with Section 154 of the Highways Act 1980. Before serving notice, the inspecting officer will record the description and location of the vegetation by reference to a location plan, record the nature and extent of the obstruction and take photographs of the vegetation such as to support any future legal action for recovery of costs etc;
- If no action is taken within the prescribed period, the highway authority will undertake works in default and recover the costs from the owner/occupier.

5.11.6.2 In respect of trees that are dead, diseased, damaged or insecurely rooted such as to constitute a danger to users of the highway the procedure described in Section 5.11.6.1 shall be adopted except that Standard Letters CM11\1 and CM11\2 will be substituted for CM10\1 (Rev.1) and CM10\2 (Rev.1) respectively.

5.11.6.3 Where pruning action affects the nesting habitat of wildlife, a comparison must be made of the likely safety risks against the environmental damage that would ensue and damage to habitat avoided if possible.

5.11.6.4 Pruning or felling of trees that are subject to Tree Preservation Orders (TPO) may require the consent of the Arboricultural Officer of the District Council, except where the tree is considered to be imminently dangerous. Any such permission must be gained before work is undertaken by the highway authority. Where the tree is considered

imminently dangerous, the District Council shall, as far as is reasonably practicable, be informed before work is undertaken.

5.11.7 **Parking on Footways**

5.11.7.1 Parking on footways will be regulated by Police enforcement or the introduction of a traffic regulation order, having regard to the availability of resources and the severity of inconvenience to pedestrians, wheelchair users, the visually impaired and other vulnerable user groups. Bollards may be installed to prevent pavement parking and the over-riding of footways and verges:

- where Police enforcement or the introduction of a traffic regulation order is impractical, ineffective or undesirable, and;
- where damage has been caused to the surface of the highway or where damage to private property has occurred or is likely to arise as a consequence of not taking action to prevent over-riding.

5.11.8 **Statutory Undertakers Works under New Roads and Street Works Act 1991**

5.11.8.1 The overall principle behind the County Council's policies is, wherever possible and practical, to minimise the duration of statutory undertaker's works. This will improve network availability by reducing the disruption and inconvenience inherent in statutory undertaker's works.

5.11.8.2 Statutory Undertakers have a legal right to excavate in the highway to install, maintain and remove their apparatus. The conduct of this is regulated by the New Roads and Street Works Act 1991 (NRSWA), Transport Act 2000 and associated Regulations and Codes of Practice.

5.11.8.3 Section 50 of the Act also permits private builders to install, maintain or remove private apparatus such as sewers and drains in the highway under licence. The builder or person granted a Street Works licence becomes an Undertaker for the purposes of the New Roads and Street Works Act and therefore attracts the relevant duties and responsibilities imposed by the Act and associated secondary legislation and Codes of Practice.

5.11.8.4 Reinstatement of the highway is the responsibility of the Statutory Undertaker. The role of the County Council is to monitor their performance within a prescribed inspection regime, but not to supervise the whole works.

5.11.8.5 The legal duty for the provision of a safe highway still resides with the Highway Authority, notwithstanding any other duties imposed upon Statutory Undertakers.

5.11.8.6 Under the Traffic Management Act, the County Council also has a responsibility to co-ordinate all works in the highway to minimise inconvenience to residents and road users. Quarterly meetings are held with the Statutory Undertakers to aid co-ordination with the larger projects and the Council's own programmed works.

5.11.8.7 To facilitate co-ordination and inspection, works are notified in advance to the County Council electronically via ETON (electronic transfer of notices) or a paper equivalent. The amount of notice can be a matter of hours or can be retrospective in the case of urgent or emergency works. In accordance with the Traffic Management Act, planned works will require three months notice. The County Council has powers to designate certain streets to restrict working hours or to require special procedures or materials to be used, for instance in conservation areas.

5.11.8.8 The EXOR Street Works Manager computer system is used in Lancashire to manage such works. The centrally administered system is accessed by local maintenance management offices that undertake inspections and day-to-day liaison with the statutory undertakers.

5.11.8.9 The performance of each Statutory Undertaker and their contractors is monitored and recorded. This includes accuracy and timeliness of the notices, the quality of the signing and guarding, the quality of the excavations and the quality of the reinstatements.

5.11.8.10 Utility work is subject to sample inspection, for which a fee is recoverable from the relevant undertaker. These inspections are to ensure that utilities work complies with national standards. Target levels of inspection are using a national formula to ensure that inspections are representative and fee income is maximised.

5.11.8.11 Signing and guarding of works should conform to the "Safety at Street works" Code of Practice. Utilities are required to implement the Code of Practice for the Reinstatement of Openings. There are other codes of practice covering co-ordination and inspections.

5.11.8.12 Section 74 of the Act imposes financial penalties on utilities that fail to comply with the requirements of the Act. The County Council has appointed a Street Works Manager and additional staff to monitor statutory undertaker's s74 performance, and charges are imposed as appropriate circumstances are identified and evidenced.

5.11.8.13 The performance standards that apply to the execution of the works themselves are set down in Regulations and Codes of Practice. These are nationally determined and the County Council cannot impose more onerous standards or grant relaxations.

5.11.8.14 Performance issues are raised with individual undertakers at local coordination meetings and the Lancashire Highways Authorities and Utilities Meeting.

5.11.8.15 Ironware comprising covers, gratings, frames and boxes set in carriageways, footways and cycle-tracks have the potential to compromise safety and serviceability and in certain cases cause noise and disturbance to local residents. Although responsibility for defective ironwork where this is part of the apparatus installed by a Utility may lie with that Utility, it must be emphasised that the County Council is responsible for safety on the highway at all times and a notice to a Utility will not absolve this responsibility. Claims are often also pursued against the authority.

5.11.8.16 The County Council has defined, in its Highway Consultancy Quality Manual for County Maintenance, the following procedures relating to defects that are the responsibility of Statutory Undertakers in accordance with the provisions of the New Roads and Street Works Act 1991.

- Quality Procedure CM18 Reinstatement Defect Procedures;
- Quality Procedure CM19 Investigatory Works (Coring);
- Quality Procedure CM20 Defective Apparatus Reporting in accordance with NRSWA Section 81.

5.11.9 **Repairs to Private Streets**

5.11.9.1 This section applies to all streets that are not highways maintainable at public expense, whether or not they are highways, and the term 'private street' has been used in this section for simplicity. Section 48 of the New Roads and Street Works Act 1991 defines a street as the whole or any part of any of the following, irrespective of whether it is a thoroughfare:

- any highway, road, lane, footway, alley or passage, any square or court, and any land laid out as a way whether it is for the time being formed as a way or not.

5.11.9.2 A private street is defined by section 203 of the Highways Act 1980 as a street that is not maintainable at public expense. For more information regarding highways maintainable at public expense see the LCC Code of Practice on Highway Status and Adoption.

5.11.9.3 The highway authority is not under any statutory duty to maintain private streets. The highway authority only has a duty to maintain highways that either existed as highways before 31st August 1835 or has become a highway maintainable at public expense since that date via a formal legal process (see Highways Act 1980 S.36).

5.11.9.4 Neither the owners of the street, nor the owners of land having a right of access along the street, are under any automatic obligation to maintain the street. Such an obligation may exist in certain circumstances, for example:

- Where a maintenance obligation has been conferred upon a person to whom a right of access has been granted;
- Where maintenance obligations exist by virtue of management agreements.

5.11.9.5 An owner of a private street is generally considered to have a right to undertake repairs and make improvements to the street, provided he does not interfere with other rights of way. A person with a private right of way, acquired either by grant or prescription, is generally considered to have a right to undertake repairs consistent with maintaining his right of way, but there is no right to undertake improvements such as would change the character of the street.

5.11.9.6 The County Council's policies relating to the repairs of private streets are as follows:

- The County Council will not allocate highway maintenance resources to the repair of private streets except in accordance with Council policy relating to the Private Street Works Code. Highway maintenance budgets are currently at a level that does not allow maintenance of the adopted highway network to the desired standard and it would be inappropriate to divert resources away from the network;
- The County Council will not normally exercise its discretionary powers under S230 of the Highways Act 1980 (*Urgent Repairs to Private Streets*). District Councils may act under s230 (7) in respect of footpaths, bridleways and urban roads as defined by HA1980 s42 (2) (c);
- The County Council's policies relating to the Advance Payments Code and the making-up of private streets to adoption standards via the Private Street Works Code are contained in the LCC Code of Practice on Highway Status and Adoption;
- Any work on private streets undertaken by any contractors will not require the consent of the highway Authority, neither will these works be deemed to obligate the County Council for any future maintenance at any time.

5.11.10 **Debris on the Highway**

5.11.10.1 District Councils have a statutory duty under the Environmental Protection Act 1990 to keep adopted highways clear of litter and, as far as is practicable, clean. However, the highway authority also has a

duty to keep the surface of a highway in a safe condition for users of the highway, and there can never be a perfect delineation of responsibilities between authorities.

5.11.10.2 The County Council accepts that debris arising from road traffic collisions should be considered to be a highway hazard and the costs of its removal allocated to highway maintenance budgets. Oil and diesel spillages are included within such debris.

5.11.10.3 The classification of fallen leaves is difficult. A deep accumulation of leaves can represent an obstruction and, once wet, fallen leaves can constitute a highway hazard. However, it could be argued that in the vast majority of cases the leaves should have been swept as litter before such conditions arise. The County Council makes a highway maintenance financial contribution to District Council's street sweeping services in recognition of the need to prevent leaves becoming a hazard to users of the highway.

5.11.10.4 The removal of fly-tipping is a District Council function. This includes builders waste deposited on the highway and "side-waste" not collected as part of household refuse collections. In respect of hazardous materials, such as asbestos, the Highway Authority may need to take measures at the scene to ensure public safety before removal of the material by appropriate specialists, such as the Fire Authority.

5.11.10.5 Animal carcasses represent a health hazard rather than a highway hazard, and their removal remains a district council responsibility.

5.11.10.6 Difficulties can also arise in the classification of wind-blown sand, which is a problem in a few districts. Highway obstructions, in the form of windrows of sand, can either arise either as a result of accumulations over a number of days, or from a single storm. In the former case, it is considered that district council amenity sweeping regimes should be designed to prevent such accumulations from occurring. However, where highway obstructions arise as a result of a single storm within a twenty four hour period, these will be treated as a highway matter. Under the Highway Residual Agreements, arrangements are in place to make contributions towards the District Council costs. These represent a "one off" contribution and are not dependent on the extent of work needed (or not needed) to be carried out by the District Council.

5.11.10.7 **Deposits of Mud on the Highway**

- Deposits of mud and soil can cause danger and inconvenience to road users. This can be a problem when vehicles track mud from farmer's fields, landfill or construction sites adjoining the public highway. The deposits can lead to vehicles losing traction, and can lead to debris being thrown into the path of other vehicles or

pedestrians. Where the deposit is such as to constitute a hazard, the County Council will take action in liaison with the Police, to obviate danger to users of the highway;

- At sites where there are frequent vehicle movements, and mud is tracked onto the adjoining road network, those responsible should ensure the road surface is regularly and adequately cleaned. Ideally, an off-road wheel-wash facility should be installed, a point that must be stressed to planning authorities by Development Control staff, or to Contractors undertaking works by Highways Inspectors. Adequate warning signs should be erected and maintained on the approaches to the entrances to such sites;
- If the highway authority becomes aware that significant or potentially dangerous amounts of mud or soil have been deposited on a County road or footway, the parties responsible should be contacted by either the Highway Authority or the Police and instructed to clean the road immediately. If the problem persists, the Council will itself erect warning signs and serve notice under section 149 of the Highways Act 1980 also notifying the Police. The Council also has a statutory power to remove the nuisance and will seek to recover its costs from the person responsible.

5.11.11 **Encroachments on the Highway**

5.11.11.1 The County Council will take enforcement action in respect of encroachments on the highway, which occur when areas of highway land are enclosed or obstructed unlawfully. The County Council can neither condone nor ignore such encroachments for a number of reasons:

- The County Council has a statutory duty to assert and protect the rights of the public to use any highway for which it is the highway authority;
- The encroachment may affect private rights of access and it is unreasonable to expect a member of the public to assert a private right where the highway authority does not meet its statutory duty;
- There may be implications for safety;
- Access to statutory undertakers and highway authority apparatus may be affected.

5.11.11.2 Action must be taken to obviate any dangerous situation for users of the highway, caused by an encroachment or alleged encroachment. In this case the appropriate action will normally be signing and guarding, though in some cases it may be appropriate to remove the obstruction without notice under common law powers or s149 of the Highways Act 1980. Where this course of action is felt to be unavoidable, reasonable efforts must be made to contact the landowner to advise them of the Council's intention.

5.11.11.3 The Highway Authority must ensure that the land concerned is public highway, and that it is still required. If the Authority considers the land to be no longer necessary as highway, the issue may be able to be resolved by means of a stopping- up order.

5.11.11.4 It is possible that the person responsible for encroaching on the highway is unaware that they have done so. Generally, the first contact should therefore be a polite letter to the landowner or householder informing them of the situation, and requesting them to remove obstructions, return boundaries to their correct alignment, and restore the highway to its original condition, as appropriate.

5.11.11.5 Legal action must be taken if the encroachment is not removed. Notice should be served, usually under s143 or s149 of the Highways Act 1980, on the person having control or possession of the obstruction. Notice may be served by recorded delivery or by hand, preferably with witnesses present.

5.11.11.6 Following the expiry of any notice and time allowed for appeal, the Highway Authority may carry out any works that are necessary to return the ground to its original line, level and condition, and can recover the costs incurred. If such action has to be taken it must be carried out as a last resort, and preferably with a police presence.

5.11.11.7 Section 322 of the Highways Act 1980 describes the full procedure for the Service of Notices. These must be followed implicitly.

5.11.12 Control of Rabbits

5.11.12.1 Under section 1 of the Pests Act 1954, the whole of England (apart from the City of London and the Isles of Scilly) has been declared a rabbit clearance area. Under s1 (2) of the Act, all occupiers of land in a rabbit clearance area have a continuing obligation to kill or take any wild rabbits living on, or resorting to, their land unless they can establish that is not reasonably practicable to do so. If it is not practicable to destroy the rabbits, occupiers have an obligation to prevent the rabbits from causing damage elsewhere by, for example, fencing them in with rabbit-proof fencing. The obligation to control rabbits is irrespective of the use being made of the occupier's land or that of his neighbours. *(Reference DEFRA Leaflet PA11 Rev 5/02 – Control of Rabbits: information for occupiers of land)*

5.11.12.2 The LCC Area Manager will undertake rabbit control operations where necessary to comply with the Council's statutory duty under the Pests Act 1954, following consultations with DEFRA regarding the appropriate control measures that might be used in each case, having regard to the health and safety of users of the highway and other that might be affected by the operations.

5.11.12.3 Further information regarding the control of rabbits may be obtained from DEFRA http://www.defra.gov.uk/wildlife-countryside/vertebrates/rabbit.htm.

5.12 Highways Structures

5.12.1 The maintenance of highways structures on County Roads is undertaken, at present, having regard to Highways Agency standards relating to trunk roads, as modified and extended by County Council Bridge Instructions (formerly Bridge Client Instructions).

5.12.2 The UK Bridges Board published a national code of practice for highways structures, entitled "Well Managed Structures", in September 2005. The County Council will review its policies for the management of highways structures having regard to the publication Well Managed Structures.

5.12.3 The County Council has published a Code of Practice for Retaining Walls Associated with Highways (September 1994, revised June 2003) that provides guidance on the arrangements for the identification, inspection, design and maintenance of highway retaining walls.

5.12.4 This first edition of the Lancashire Highway Maintenance Plan therefore addresses in detail only those functions and issues affecting day-to-day highway maintenance activities, and supplements the LCC Code of Practice for Retaining Walls Associated with Highways.

5.12.5 The first edition of the Plan includes the following operational policies:

- Private retaining walls near streets (see Section 5.11.4);
- Resurfacing at highways structures;
- Reporting bridge defects;
- Removal of graffiti from highways structures.

5.12.6 Resurfacing at Highways Structures

5.12.6.1 If resurfacing is proposed at a highway structure then the following policy shall apply in general:

i) **Structures Maintained by LCC**

- Underbridges - carriageway and footway levels shall remain as existing in order to prevent an increase in dead load and a reduction in parapet heights;
- Overbridges - carriageway levels shall remain as existing in order to prevent a reduction in headroom;
- Retaining Walls – where the retaining wall supports the road, carriageway and footway levels may be lifted slightly providing

the wall is in good condition and that the parapet height will not be reduced to less than 1.1 metres as a result of resurfacing. Otherwise carriageway and footway levels shall remain as existing. Where the retaining wall supports property adjacent to the road, carriageway and footway levels may be lifted.

ii) **Structures Maintained by Others**

The appropriate maintaining authority shall be consulted, with a copy of all correspondence passed to the Environment Directorate – Chief Engineer (Bridges) for his information.

5.12.6.2 Despite the above general policy there may be certain specific structures where a departure from the above policy may be acceptable. However, this should only be in exceptional circumstances and all such cases shall be agreed with the Environment Directorate - Chief Engineer (Bridges). Instances where agreement may be forthcoming are as follows:

- Underbridges – at arch bridges where the spandrels / wing walls are in a good condition and where the parapet height will not be reduced to less than 1.1 metres as a result of resurfacing;
- Overbridges – at any bridge where the minimum headroom would still be significantly greater than the 'Maintained Headroom' specified in Highways Agency Departmental Standard TD 27/96 after resurfacing.

5.12.6.3 The Environment Directorate – Chief Engineer (Bridges) should be notified of all proposals for resurfacing at highways structures maintained by LCC and at overbridges maintained by others:

- So that the opportunity may be taken to carry out maintenance and work on the highway structure at the same time e.g. deck repairs, replacement of joints and waterproofing systems;
- To allow the clearance under overbridges to be rechecked once surfacing work has been completed and prior to the road being reopened to traffic.

5.12.6.4 LCC and privately maintained bridges are recorded on the Highway Information System and will be made publicly available on the internet based corporate GIS 'MARIO', Maps & Related Information Online, where additional data, e.g. bridge owner details, will be available.

5.12.7 **Reporting Bridge Defects**

5.12.71 Damage or defects at bridges (including bridge parapets) shall be reported to the Environment Directorate – Chief Engineer (Bridges).

5.12.7.2 Dangerous defects e.g. gaps in parapets shall, where appropriate, be made safe by temporary signing/guarding pending an inspection by Bridges Inspector / Structural Engineer.

5.12.8 **Removal of Graffiti from Highways Structures**

5.12.8.1 At the Highways and Transportation Committee in September 1992 the policy set out below was approved for the removal of graffiti from County Council highway structures.

5.12.8.2 Removal to be in the following priority order and subject to budgetary restraints:

- Racist or obscene graffiti to be removed, or obliterated by painting over if appropriate. Other graffiti on the structure to be removed at the same time only when a relatively small additional area is involved or the situation is as described below;
- All graffiti to be removed where the Executive Director of Environment considers that there is little risk of more appearing in the medium term;
- Graffiti to be removed from structures in conjunction with an area-wide clean up campaign, organised by a District Council or others, where steps have been taken which, in the opinion of the Environment Director, are likely to prevent a re-appearance of graffiti in the medium term.

5.12.8.3 The use of anti graffiti finishes on existing structures shall only be considered if economically justified in the implementation of this policy. It is considered that the use of such finishes will rarely be justified and, in addition, since these would be financed from the Revenue Bridge Maintenance Budget the availability of funding shall be checked with the Chief Engineer (Bridges).

5.12.8.4 The technique of 'painting over' as referred to above is not intended for use solely on structures, which are already painted. It can be used in appropriate cases, for example for concrete surfaces, if a colour is chosen to match the concrete. In most cases it is expected that graffiti will be removed rather than painted over. However if painting is proposed then the approval of the Chief Engineer (Bridges) shall be obtained.

5.12.8.5 As stated above, the policy has been approved 'subject to budgetary restraints'. The removal of graffiti is charged to the highway damages budget, which does not in fact have a specified limit, since it is intended to also cover damages due to road accidents, which cannot be accurately predicted. However, in order to comply with the County Council instructions to minimise the expenditure on revenue budgets it is proposed to restrict the expenditure on graffiti removal on County

structures to a maximum of about £35,000 per annum. This limit shall not be exceeded without prior discussion with the Chief Engineer (Bridges).

5.13 Street Lighting and Illuminated Signs

5.13.1 Existing LCC Codes of Practice for Road Lighting are listed in Table 1.1 – Schedule of LCC Highway Policy Documents.

5.13.2 Revised LCC Codes of Practice for street lighting and illuminated signs will be prepared in response to the publication of the national code of practice for highway lighting management, Well-lit Highways (DfT UK Lighting Board, November 2004).

5.14 Land Charge Searches

5.14.1 The County Council, as highway authority, provides highway information in response to Local Land Charge Search enquiries made by District Councils via Form CON29 and private sector organisations via written enquiries. Information is also supplied by telephone to personal searchers.

5.14.2 In accordance with the Local Authorities (Charges for Land Searches) Regulations 1994, the County Council makes a charge for the provision of such information. The charges are reviewed annually by the Council's relevant Cabinet Portfolio Holder and are published in the Schedule of Highways Fees and Charges (see Supporting Documents).

5.14.3 In response to search enquiries, the County Council declares highway proposals that it has approved and which are under the direct control of the Environment Directorate. District Councils will declare highway proposals that they are implementing under their own, or delegated, powers.

5.14.4 The County Council has recorded its highways proposals graphically on the corporate GIS, 'Mapzone', under the following information layers:

- Road Classification;
- Bridges for Searches;
- Local Safety Schemes [all schemes that would be declarable in response to Question 3.6 on Form CON29 Part 1] within certain parameters which are qualified with the informatives;
- Compulsory Purchase Orders;
- Major Schemes and Major Schemes Buffer.

5.14.5 The County Council also provide information in relation to 'Road Proposals by Private Bodies' (Section 278 Agreement works) and Public Rights of Way, when such information is requested under the optional Form CON29 Part 2 Additional Enquiries.

5.15 Railway Level Crossings

5.15.1 The legal framework applicable to level crossings was established by the Highway (Railway Crossings) Act 1839 followed by the Regulation of Railways Act 1842 (Section 9) and has been developed through a number of legislative and regulatory changes since.

As a new level crossing would either form part of a new railway or provide a new point of crossing an existing railway it would be subject to the Transport and Works Act 1992 in England and Wales, requiring authorisation by way of an order made by the Secretary of State, or in Scotland, an Act of Parliament, private bill, or light railway order.

A new level crossing would also be subject to the requirements of the Level Crossings Act 1983, as amended by the Level Crossings Regulations 1997 in relation to the provision of equipment and road signs, road markings, and operational requirements. Further details of the Level Crossings Act are set out below. ***Rail Safety and Standards Board GI/GN7612 – April 2005.***

5.15.2 As far as the alteration and modification of level crossings is concerned, different considerations apply, depending on whether the level crossing in question is public or private.

Works to level crossings are regulated by statute and can be subject to contractual arrangements and planning legislation concerning their use.

All works altering or modifying a level crossing on a road or other highway to which the public has access require an order to be made by the Secretary of State pursuant to Section 1 of the Level Crossings Act. An order may require that a previous order be revoked or varied. ***Rail Safety and Standards Board GI/GN7612 – April 2005.***

5.15.3 The type of work requiring an order could include:

- Altering the dimensions of a level crossing;
- Changing the method of operation;
- Provision of telephones;
- Altering time cycles;
- Provision of cattle cum trespass guards;
- Altering traffic signs or road markings;
- Constraining the use of audible warning devices.

Such orders have to be obtained before works can be commissioned. ***Rail Safety and Standards Board GI/GN7612 – April 2005.***

5.15.4 Prior to the enactment of the Level Crossing Regulations 1997 works to existing public level crossings required either:

i) a statutory order made in accordance with either:

- The British Transport Commission Act 1957 (Section 66);
- The Transport Act 1968 (Section 124);
- The Level Crossings Act 1983; or

ii) written consent given in accordance with the British Transport Commission Act 1954 (Section 40).

Section 66 of the British Transport Commission Act 1957 and section 124 of the Transport Act 1968 have both been repealed. However, any orders made before 1 April 1997 have effect as if they were made under the Level Crossings Act 1983 and any order made under the repealed sections can be varied or revoked under the Level Crossings Act. Section 40 of the British Transport Commission Act 1954 has also been repealed. Consents given under this section should have been replaced with orders obtained under the Level Crossings Act. ***Rail Safety and Standards Board GI/GN7612 – April 2005.***

5.15.5 After 1997, pursuant to the Level Crossings Act, the Secretary of State may make an order either:

i) At the request of an infrastructure controller.

ii) At the request of an infrastructure controller following written notification issued by the Health and Safety Executive (HSE).

iii) Without the request of an infrastructure controller.

5.15.6 Before an infrastructure controller makes a request for an order, he should:

i) Notify each local authority in whose area the level crossing is situated.

ii) Provide a copy of the draft order.

iii) Specify the period (not being less than two months) within which the local authority may make representations to the Secretary of State in respect of the request.

Where the Secretary of State seeks to make an order without the request of an infrastructure controller, he is required to send a copy of the draft order to the relevant local authority and the relevant infrastructure controller (where applicable) inviting them to make representations in respect of the order. ***Rail Safety and Standards Board GI/GN7612 – April 2005.***

5.15.7 Maintenance works do not normally require an order made pursuant to the Level Crossings Act or any other legislation.

5.15.8 The surface of the carriageway and footways over the crossing is, normally, maintainable by Network Rail (Infrastructure) Ltd.

The Order may require that the Operator seeks the co-operation of the highway authority to ensure that advance warning signs are provided and maintained on the approach roads.

Information relating to level crossing geometry, surfaces etc may be found in Railway Group Standard GI/RT7012. **Rail Safety and Standards Board - August 2004**

6. WINTER SERVICE, WEATHER AND OTHER EMERGENCIES

6.1 Winter Service

6.1.1 The County Council aims to provide a winter service which, as far as is reasonably practicable, will permit the safe movement of traffic on priority roads at all times and will keep to a minimum, delays and accidents in which ice or snow is a contributory factor.

6.1.2 The Winter Service policy sets out the County Council's requirements and advice for the winter maintenance service on all highways for which the County Council is the highway authority. The County Council, as highway authority has a duty to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice Amendment to the Highways Act 1980.

6.1.3 Highway authorities do have powers to undertake precautionary salting, post-salting and snow clearance in dealing with adverse winter weather conditions. The use of these powers is relevant to an authority's road safety responsibilities in addition to its highway maintenance function. It is important to recognise that the highway authority is obliged to take preventative measures in anticipation of ice or snow.

6.1.4 The following document has been considered in the formulation of this document:

Well-maintained Highways - Code of Practice for Highway Maintenance

6.1.5 This Policy is intended for the planned winter service and exceptional conditions will occasionally overrule the guidelines and recommended actions contained herein.

6.1.6 The table below sets out the relative responsibilities for winter maintenance:

Client	**Contractor**
Winter Maintenance Plan Standards Road Priorities Day to day decision making Routeing Vehicles Materials Performance Monitoring	Day to day operations

6.2 Policy Statement

The County Council recognises that it is uneconomic, impractical and indeed unjustifiable to treat the whole highway network when undertaking planned winter maintenance. It is therefore necessary to clearly identify the priority roads that will receive preferential treatment for salting and snow clearing.

6.3 Precautionary Salting

6.3.1 Carriageways

The criteria for the prioritisation of roads is set out in Table 1 which defines the categories of road in descending order of importance.

TABLE 1 : PRIORITY ROADS	
Category	**Definition**
I	Non-Trunk Motorways
II	Principal 'A' Roads
III	All "B" Roads Other Roads: • between or through large centres of population • serving hospitals, ambulance and fire stations • leading to main centres of employment and on important commuter routes • leading to important industrial and military establishments • single access to villages

It should be noted that the following categories of road have been specifically excluded from permissible precautionary salting of carriageways:

- housing estate roads without appreciable gradients;
- minor roads without appreciable gradients.

The priority road coverage will constitute all non-trunk motorways, principal "A" roads and varying proportions of the remaining highway network dependent upon the topography and climate of the area in question as indicated in Table 2.

TABLE 2 : GUIDELINE COVERAGE FACTORS FOR OTHER ROADS	
Area	**% Coverage of Other Roads**
Lancaster Rural	25.0%
Remaining parts of Lancaster, Wyre, Fylde, Preston, South Ribble, West Lancashire & Chorley	17.5%
Ribble Valley, Hyndburn, Burnley, Pendle & Rossendale	35.0%

It is planned that all precautionary salting of carriageways will be completed before the formation of ice on the priority network.

6.3.2 Footways, Cycle Tracks and Cycleways

Footways, cycle tracks and cycleways are not included in the County Council's planned winter service and therefore will not receive any precautionary salting treatment.

6.4 Post-Salting

6.4.1 Carriageways

The post-salting of carriageways will be required when, for whatever reason, precautionary salting has not been carried out and ice has formed, or is about to form on the road surface. This situation may arise because of:

- a late change in the forecast;
- the result of a site inspection;
- monitoring of the Ice Prediction System;
- a report from the police;
- a non-category I, II or III road.

The criteria for the prioritisation of roads is set out in Table 3 which defines the categories of road in descending order of importance and the respective treatment times.

TABLE 3 : TREATMENT TIMES

Category	Definition	Treatment Time
I	Non-Trunk Motorways	Within 2½ hours
II	Principal 'A' Roads	Within 2½ hours
III	All 'B' Roads Roads: • between or through centres of population • serving hospitals, ambulance and fire stations • leading to main centres of employment and on important commuter routes • leading to important industrial and military establishments • at identified trouble spots • providing single access to villages	Within 4 hours
	All Other Roads	Unspecified

The "Treatment Time" refers to the maximum time taken to salt each category of road from the spreading vehicle leaving the depot to the completion of the last salting action on route. The time taken in

responding to a decision to salt, which includes for the crews being contacted, travelling to the depot and loading the spreaders, should not exceed one hour.

Other roads will be considered for post-salting treatment in periods of continuous icing and snow defined as any 24 hour period in which ice/snow is likely to persist and are referred to as 'Secondary Routes'. Continuous icing may arise as a result of excessive surface moisture, usually following heavy precipitation or compacted/melting snow, and all relevant factors such as forecast data, topography, experience and local knowledge should be taken into account. Action shall only be taken in daylight hours after all the higher priority roads have been cleared.

6.4.2 Footways

Footways are not included in the County Council's planned winter service and will therefore not receive any post salting treatment. However, a priority footway network has been identified and this network will receive a post salting treatment during periods of continuous icing/snow commencing not more than 24 hours after the start of the event, but only during daylight hours.

6.4.3 Cycle Tracks and Cycleways

Cycle tracks and cycleways are not included in the County Council's planned winter service and therefore will not receive any post-salting treatment.

6.5 Snow Clearance

6.5.1 Carriageways

The snow clearance of carriageways will be in accordance with Table 2 although the "Treatment Time" will have little relevance when snow accumulation is significant and snow ploughing is required. It is accepted that prescriptive guidance is not appropriate for snow situations where labour and plant resources may have to be deployed more flexibly in order to achieve optimum effectiveness. For example gritters often operate in tandem with the lead vehicle snow ploughing (with a full salt pay-load for traction) and the second vehicle spreading salt.

6.5.2 Footways, Cycle Tracks and Cycleways

Footways (other than the priority footway network referred to in 1.2.3.2), cycle tracks and cycleways will be considered for snow clearance on a priority basis only as and when resources permit.

6.6 Provision of Salt Bins

6.6.1 Salt bins should be provided only on minor roads, which are not on a salting route or where there is a particular hazard and the road in question, is treated at a late stage in the gritting cycle. Areas where problems recur will be known to the Client Officers and the locations singled out for attention will be those subject to one or more of the following criteria in accordance with the Salt Bin Assessment form:

6.6.1.1 Exposed position or otherwise significantly affected by winter weather.

6.6.1.2 Not on salting route (or late in cycle).

6.6.1.3 Combination of vertical and horizontal profile producing a hazardous condition i.e. steep bend with adverse camber.

6.6.1.4 Junction hazard i.e. steep road down to junction with main road.

6.6.1.5 High pedestrian movement i.e. to local centres.

6.6.1.8 Number of premises for which road is an access.

6.6.2 Generally the more criteria met the higher the justification but each case will have to be taken on its merits and the final decision will depend on the judgement of the Area Manager.

6.6.3 Although bins will not generally be sited on housing estate roads there may be the odd exception and the decision is left to the Area Manager's discretion.

6.6.4 Bins should be robust with a strong lid, which keeps out water. They should be labelled "Salt for Highway Purposes only" to discourage movement or mistreatment and should be identified by numbering. It is suggested that they be ballasted with old kerbs as a further deterrent to unauthorised removal.

6.6.5 Requests for new salt bins should be assessed by completion of the Salt Bin Assessment Form. Recommendations for providing a new salt bin are to be approved by the Area Manager prior to an order being issued to install.

6.6.6 All salt bin locations should be continually assessed due to changing conditions. Where it is felt a location no longer warrants a salt bin, an assessment form should be completed and following approval by the Area Manager the salt bin can be removed (generally when nearly empty of salt).

6.6.7 Copies of Approved Assessment forms should be sent HEM Maintenance to update records.

6.7 Decision Making

<table>
<tr><th colspan="5">Decision Matrix Guide</th></tr>
<tr><th rowspan="2">Road Surface Temperature</th><th rowspan="2">Precipitation</th><th colspan="3">Predicted Road Conditions</th></tr>
<tr><th>Wet</th><th>Wet Patches</th><th>Dry</th></tr>
<tr><td rowspan="6">Expected to fall below 1ºC</td><td>No rain
No hoar frost
No fog</td><td rowspan="2">Salt before formation of ice/hoar frost</td><td>Salt before formation of ice (see note a)</td><td>No action likely, monitor weather and carry out inspections as necessary (see note a)</td></tr>
<tr><td>Expected hoar frost
Expected fog</td><td colspan="2">Salt before formation of ice/hoar frost (see note b)</td></tr>
<tr><td>Expected rain
BEFORE freezing</td><td colspan="3">Salt after rain stops (see note c)</td></tr>
<tr><td>Expected rain
DURING freezing</td><td colspan="3">Salt before formation of ice, as required during rain and again after rain stops carrying out inspections as necessary (see note d)</td></tr>
<tr><td>Possible rain
Possible hoar frost
Possible fog</td><td colspan="2">Salt before formation of ice/hoar frost</td><td>Monitor weather conditions and carry out inspections as necessary</td></tr>
<tr><td colspan="2">Expected snow</td><td colspan="3">Salt before snowfall</td></tr>
<tr><td colspan="5">General Notes:
The timing of precautionary treatments should be such that completion is prior to the forecast time of frost.
The decision to undertake precautionary treatments should, if appropriate, be adjusted to take account of residual salt or surface moisture.
Salting should not generally commence unless the relative humidity (RH) at the nearest weather station is greater than 70% and rising.
All decisions require constant monitoring and review.</td></tr>
</table>

Notes to Decision Matrix Guide:

a) Particular attention should be given to the possibility of water running across carriageways and other running surfaces e.g. off adjacent fields after heavy rains, washing off salt previously deposited. Such locations should be closely monitored and may require treating in the evening and morning, and possibly on other occasions.

b) When a weather warning contains reference to expected hoar frost, considerable deposits of ice/frozen dew are likely to occur. Hoar frost usually occurs in the early morning and is difficult to cater for because of the probability that any salt deposited on a dry road too soon before its onset, may be dispersed before it can become effective. Close monitoring is required under this forecast condition, which should ideally be treated just as the hoarfrost is forming. Such action is usually not practicable and salt may have to be deposited on a dry road prior to but as close as possible to the expected time of the condition. Hoar frost may be forecast at other times in which case the timing of salting operations should be adjusted accordingly.

c) If, under these conditions, rain has not ceased by early morning, crews should be called out and action initiated as rain ceases.

d) Under these circumstances rain will freeze on contact with running surfaces and full pre-treatment should be provided even on dry roads. This is a most serious condition and should be monitored closely and continuously throughout the danger period.

e) Weather warnings are often qualified by altitudes. In this case differing action may be required from each depot.

6.8 Carriageway Treatment Matrix

For salt to be effective and to ensure its economic use, it is important that the correct spreading rates are used. The following table indicates the rates of spread for various conditions.

Treatment Matrix Guide			
Weather Conditions Road Surface Temperature (RST) Road Surface Conditions	**Treatment**		
	Air Temperature	**Salting (g/m²)**	**Ploughing**
Hoar frost / ice or forecast hoar frost / ice RST at or above -2ºC		10	No
Hoar frost / ice or forecast hoar frost / ice RST below -2ºC and above -5ºC		20	No
Hoar frost / ice or forecast hoar frost / ice RST below -5ºC and above -10ºC and dry or damp road conditions		20	No
Hoar frost / ice or forecast hoar frost / ice RST below -5ºC and above -10ºC and wet road conditions (existing or anticipated)		40	No
Light snow forecast (<10mm)		20	No
Medium / heavy snow forecast		20-40	No
Continuous snow		40 (successive)	If depth exceeds 40mm
Ice formed (minor accumulations)	above -5ºC	20	No
Ice formed	at or below -5ºC	40	No
Snow covering exceeding 40mm		40 (successive)	Yes
Hard packed snow / ice	above -8ºC	40 (successive)	No
Hard packed snow / ice	at or below -8ºC	salt/abrasive (successive)	No
Rate of spread for precautionary treatments may occasionally need be adjusted to take account of residual salt or surface moisture			
Where safecote treated salt is used spread rates will be reduced by 30% by adjustment of gritter belt speeds			

6.9 Weather, Civil and Other Emergencies

6.9.1 Weather related emergencies include conditions such as hgih winds, high temperatures and both fluvial and tidal flooding. Procedures exist for the two former situations for which advance warning may be expected, whilst the County's response to flooding is detailed in the County flooding plan prepared by the County Council's Emergency Planning Section.

6.9.2 Smaller scale local emergencies such as diesel spillages or road traffic accidents are dealt with under formal procedures using resources

located at County and District depots throughout the County. Arrangements exist whereby some District Councils will provide road-sweeping plant to clear debris and spillages on the highway. Outside normal working hours, an 'out of hours' telephone contact ensures that service is maintained.

6.9.3 In the event of specific hazardous incidents or large-scale civil or national incidents, there are a range of Emergency Plans for guidance. In these situations the County's Emergency Planning Section will take the lead.

6.10 Emergency Planning

6.10.1 The County Council's Emergency Planning Section is a small team that provides a specialist emergency planning service to the County Council, the 12 Districts of Lancashire and, through Service Level Agreements, to the unitary authorities of Blackburn with Darwen and Blackpool. The Section is located at The Hub, Preston, the facilities of which include an emergency centre. This, together with its associated communciations, is designed to provide the focal point for the co-ordination of the County Council's response to a major incident within Lancashire.

6.10.2 Much of the Section's activity is discretionary as local authorities enjoy a power to spend monies responding to emergencies and to plan, train and exercise in preparation. At present, Direct Grant provides approximately 90% of the Section's budget.

6.10.3 The prime activities of the Section are:

- The preparation and mainteannce of a County Major Emergency Scheme to provide a generic basis for County Directorates to respond to any emergency;
- The preparation and maintenance of plans for major hazard pipelines (under the Pipelines Safety Regulations 1996);
- The preparation and maintenance of off-site plans for certain industrial and nuclear sites (under the Control of Major Accident Hazard Regulations 1999 and the Radiation (Emergency Preparedness and Public Information) Regulations 2001);
- The preparation of county-wide plans for specific and identified hazards such as coastal pollution, chemical incidents and radiation incidents in association with RADMIL, flooding, off-shore incidents and temporary mortuaries.

6.10.4 In addition, the Section is responsible for the preparation and maintenance of other plans and guidance such as:

- Media handling;

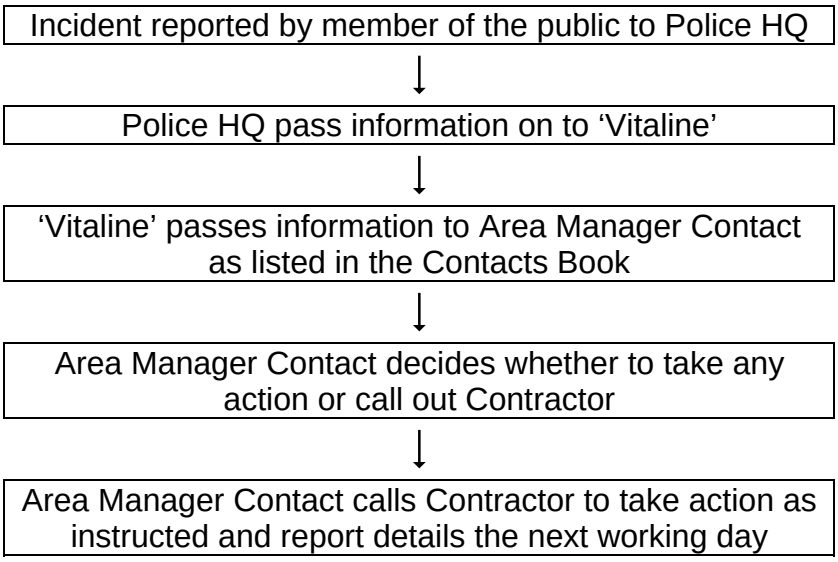
- Rest centres;
- Party conferences;
- Advice to County Directorates on the preparation of emergency arrangements;
- Advice to District Councils on emergency planning matters, including the preparation of emergency plans;
- The provision of an emergency planning service to Blackburn with Darwen and Blackpool Borough Councils;
- Liaison with the emergency services and other agencies, including the voluntary sector, to ensure co-ordination of emergency arragnements;
- The preparation and organisation of, and participation in, training and exercises for local authority staff and voluntary agencies;
- The maintenance of a County Emergency Centre;
- The maintenance of an emergency on-call duty officer system;
- The maintenance of the Emergency Communications Network and the provision of additional emergency communications to Lancashire District Councils;
- The maintenance of the IMPLEX radiation monitoring system.

6.11 Arrangements for Out of Hours Highways Emergencies

6.11.1 The current procedure for responding to out of hours incidents is shown in Figure 6.1.

6.11.2 A review of arrangements to reflect the current delivery of services through Area Managers will be included in the Highway Maintenance Strategy and Improvement Plan, shown in supporting documentation.

Figure 6.1 : Out of Hours Emergency Procedure



7.1 Arrangements with District Councils

7.1.1 From 1974 until 2006, District Councils in Lancashire carried out a range of Highway Authority functions under formal Agency arrangements. For the final three years, this arrangement was known as the "Lancashire Highways Partnership" (LHP).

7.1.2 Following termination of the three year LHP agreement on the 30th June 2006 the delivery of core highway functions, including traffic management, highway maintenance and adoption of highways, became the exclusive responsibility of the Highway Authority.

7.1.3 Funding for maintenance is split between two budgets, HMB and PROWWMB. Maintenance of the publicly maintainable highways presently recorded on the Definitive Map of Rights of Way is maintained from the PROWWMB and maintenance of all other publicly maintainable highways is maintained from the HMB.

7.1.4 Some Agencies have been developed with all District Councils in Lancashire. They include some maintenance works, principally to the soft estate. Funding of these services is based on the cost of carrying out the work to LCC standards. Where a District wishes to carry out these works to a higher standard i.e. more frequent grass cutting, they may do so at their own expense. The Agency arrangements are to be known as "The Street Services Agreement" from July 2009.

The contents of current Agency Agreements are summarised below:

- Grass cutting in highway verges (Lancaster, Wyre, Preston, South Ribble, Chorley, West Lancs, Hyndburn, Burnley and Pendle);
- The treatment of weeds in highways (Lancaster, Wyre, Preston, South Ribble, Chorley, West Lancs, Hyndburn and Pendle);
- The maintenance of highway trees (Lancaster, Wyre, Preston, Chorley, West Lancs, Hyndburn, Burnley and Pendle);
- Financial contribution towards the sweeping of wet leaves on the highway (All Districts);
- Financial contribution towards the sweeping of wind-blown sand on the highway (Fylde);
- Maintenance and some management of parts of the Public Right of Way network (Wyre, Ribble Valley and Pendle);
- Authority to manage existing on-street pay and display parking schemes (Lancaster and Preston);
- Authority to work on the highway on District Council equipment and apparatus (All Districts);
- Subject to prior technical and maintenance plan approvals, authority to undertake work in the highway. (All Districts except Ribble Valley and Rossendale);

- Authority for floral decorations, etc. (All Districts);
- Authority to manage and maintain a section of Morecambe promenade designated as a highway (Lancaster);
- Authority to use Private Street Works legislation (Pendle);
- Authority to undertake maintenance work in Conservation and other defined areas. (Preston and Pendle);
- Authority to utilise Highway Authority powers for the removal of unauthorised signs. (South Ribble, Chorley and Pendle).
- Authority to use Highway Authority powers contained within the 1984 Special Events Act in respect of special events within the administrative area of the Borough (Rossendale and Chorley)
- Special pilot arrangements have been introduced in the South Ribble area to operate from April 2009. Under these arrangements some of the above functions are undertaken throughout the administrative area of the Borough for a trial period.

7.2 Area Management under HMB

7.2.1 The delivery of key highway maintenance and management functions together with some traffic management work is carried out on an area basis. For this purpose three Areas supported by the respective Area Managers and staff have been established. These comprise Area North (Lancaster, Wyre and Fylde districts), Area South (Preston, South Ribble, Chorley and West Lancs. districts) and Area East (Hyndburn, Ribble Valley, Burnley, Pendle and Rossendale districts).

7.2.2 Member representation is via Lancashire Local Committees. These are made up of equal numbers of elected members of both the County Council and the respective District Council. Certain highway decision making functions have been delegated to the 12 Lancashire Local Committees. These Committees are consulted on Policy change issues

7.3 Works Procurement (HMB)

7.3.1 Subject to paragraph 7.3.3 below, highway services in each of the three areas are provided through a contract with Lancashire County Engineering Services (LCES).

Services provided by LCES include the following:

- Highway maintenance;
- Street lighting;
- Bridges maintenance;
- Local safety schemes;
- Capital programme schemes;
- Accident prevention measures;
- Countryside maintenance.

7.3.2 All work up to £125k is procured directly from LCES, the remainder being subject to the normal competitive tendering process.

7.3.3 The contract with LCES encompasses the whole highway network in Lancashire for which LCC as Highway Authority has responsibility.

7.3.4 The annual value of work undertaken by LCES is in the region of £35M. A number of fixed cost items such as Preliminaries and emergency out of hours standby costs are "top-sliced" from the budgets enabling client managers to work with net allocations and optimise financial control. The contract prices are subject to annual review in accordance with a price adjustment formula.

7.3.5 Area based staff certify and pay for all works via the LCC Works Ordering System.

7.4 Communications Strategy (HMB)

7.4.1 The County Council Service Centre has been established at the Red Rose Hub, just outside Preston. A project team, established to implement an interim contact centre prior to the opening of the current service centre, has worked closely with highways staff to develop the knowledge bank essential for the service centre advisors to be able to deal with the wide range of service requests and queries that arise in the highways sector.

7.4.2 Public enquiries, normally received by telephone or email, are logged in the Public Enquiry Manager System and allocated as appropriate for investigation and action. Local and Area offices are required to interrogate PEM at least three times a day to receive newly logged service requests. The Service Centre refers urgent matters to the relevant Area or HQ Office by telephone.

7.4.3 The telephone number for highways enquiries is 0845 053 0011.

7.4.4 Local highways offices have been provided with high-speed fixed communications links to HQ systems, including:

- Public Enquiry Manager;
- Street Works Manager;
- Maintenance Manager;
- Works Ordering System;
- Winter Service information, management and forecasting systems;
- Financial Management Systems;
- Corporate GIS and associated highway information.

7.5 Risk Management

7.5.1 Highway Authority Liability

The cost of compensation paid in respect of third party claims – 'slips, trips and falls' – is met from Highway Maintenance allocations. The total amount of such liability in previous years is tabulated below:

Table 7.4 : Third Party Claims

Year	Cost of claims	No of claims received
1999/2000	£1.16m	1126
2000/01	£1.61m	1999
2001/02	£2.39m	2515
2002/03	£3.95m	3317
2003/04	£5.08m	2972
2004/05	£5.21m	2469
2005/06	£6.33m	1745
2006/07	£2.93m	1437
2007/08	£4.07m	1301
2008/09(est.)	£2.28m	1250

7.5.2 Risk Analysis of Highways Maintained from HMB

7.5.2.1 In accordance with the principles of the LCC Transport Asset Management Plan and effective risk management, it will be necessary to undertake a risk analysis for each asset component to determine whether the associated risks can be obviated, managed or accepted.

7.5.2.2 However, it is expected that the review of the UK Code of Practice for Maintenance Management, the Midland Regional Service Improvement Group (AMP Project) and CSS Highway Asset Valuation Project will provide further good practice guidance on Asset Hierarchy and Risk Analysis during the course of 2008/09 and it is intended that detailed work on risk analysis will be included in the 2009/10 Lancashire Highway Maintenance Plan, when more claims statistical information will be available.

7.5.2.3 There are a number of issues where anecdotal evidence suggests that there are specific issues that need analysis in relation to their impact of risk management. These are:

- Assessment of the need to continue to reduce the size of the flagged footway network;
- Assessment of the need to review inspection systems for highway trees and private trees that put users of the highway at risk. Additional funds to undertake limited tree inspections by qualified arboriculturalist are now in the budget. A previous bid was not accepted based on the adverse impact on finite resources by

comparison with the low number of third party claims arising, locally, from fallen trees and branches. However, some Highway Authorities have implemented systematic tree inspections and the pressure to introduce a system has increased in this area. Development of a practical inspection system continues;

- Assessment of the need to include urban metalled PROW and metalled bridleways in the Highway Safety Inspections system;
- The need to gain complete knowledge of the adopted highway network, including those highways constructed by local Housing Authorities under the Housing Acts of 1957 and 1985, which are, following judgement in the Court of Appeal, deemed to be highways maintainable at public expense;
- Assessment of the need to undertake service inspections on safety fences for network integrity i.e. are safety fences designed, installed and maintained to current design standards and good practice;
- Assessment of the need to introduce service inspections for culverted water courses and debris screens having regard to the court judgement in the Bybrook Barn Case and the implications of climate change.

7.5.3 Highway Safety Inspections System of Highways Maintained Under HMB

7.5.3.1 A key element of the highway maintenance risk management strategy is to reduce the proportion of the budget allocated to compensation payments. The Highway Safety Inspection (HSI) system, introduced in October 2002, is enabling the County Council to develop a consistent approach to the identification, repair and recording of highway safety defects. The resultant safer highway environment not only contributes directly to achieving corporate and service objectives, but also forms the basis of a robust Section 58 (Highways Act 1980) defence against third party claims.

7.5.3.2 Since the introduction of the HSI system, there is evidence to suggest the number of claims is beginning to decline and, in addition, the improved ability to defend claims should lead to a consistent reduction in the number of claims against the Authority, and the ability to release resources that can be reallocated to structural maintenance to facilitate improvements in network condition.

7.5.3.3 Highway Safety Inspections are undertaken by Capita Symonds plc under a consultancy agreement. To the extent described in the Contract, the Consultant is responsible for the thoroughness, accuracy, and timeliness of his inspections and associated records, thus further reducing the Council's exposure to risk.

7.6 Budgets, Programming and Priorities

7.6.1 The decision making process for Environment Directorate budgets, priorities and programming is described in the Transport Asset Management Plan.

7.6.2 Within the overall funding for road maintenance, road structural maintenance allocations are developed using data from the Pavement Management System and input from local service managers.

7.6.3 Within the overall funding for road maintenance, allocations for routine maintenance are calculated from HIS inventory data and unit rates for maintenance of the various inventory components. The allocations for the individual components are aggregated into budget allocations, but are not ring-fenced to the individual components.

7.7 Financial and Budgetary Control

7.7.1 The Resources Director manages corporate finances. The Environment Directorate manages the delivery of the highway maintenance service under both the HMB and PROWWMB with the support of local works ordering and financial systems. The delegation of financial responsibilities is clearly defined, with each officer having an authorized spending level. The value to which an individual officer may initiate works orders is established at a level to ensure the delivery of a responsive service. Low cost reactive works can be authorised by a range of front line staff, whilst high value programmed works can only be authorised by senior officers.

7.7.2 Expenditure is managed in accordance with corporate monitoring procedures. Spending officers are defined for each budget centre and have responsibility for managing expenditure in compliance with Council's Standing Orders and Financial Regulations.

7.8 Best Practice

7.8.1 In the period between 1994 and 2006 when some Highway Authority functions were carried out by Lancashire Districts under Agency arrangements, various working practices were established, largely based on the working arrangements of the various Districts.

7.8.2 On termination of the Lancashire Highways Partnership and following the transfer of staff under TUPE arrangements to the County Council, it became apparent that there is a wide range of approaches and therefore options for administering the various highway maintenance and management functions.

7.8.3 Included within the Highway Maintenance Strategy and Improvement Plan (in supporting documents) is a proposal to evaluate the various

working practices and to determine and adopt on a countywide basis best practice arrangements. This work is now on-going.

8. PERFORMANCE MANAGEMENT AND IMPROVEMENT

8.1 Performance Indicators and Benchmarking

8.1.1 Performance Indicators for Safety

8.1.1.1 Lancashire County Council is committed to meeting the casualty reduction targets set by the Government in March 2000. The targets for the year 2010 are based on the average number of casualties in the period 1994-1998 and require:

- 40% reduction in the number of people killed or seriously injured;
- 50% reduction in the number of children killed or seriously injured;
- 10% reduction in the slightly injured casualties.

8.1.1.2 Through its broad programme of schemes and other measures, Lancashire has established a downward trend in casualties and has now committed itself to a more demanding target through the Local Public Service Agreement that sets an extended target of saving a further 89 casualties per year over the period 2003 to 2005.

8.1.1.3 The provisional Lancashire Local Transport Plan has targeted child pedestrian casualties as a priority, and a local target for the reduction of child pedestrian casualties has been set.

8.1.1.4 The condition of the highway asset is fundamental to the safe operation of the highway network.

8.1.2 Performance Indicators for Highway Condition

8.1.2.1 The national Best Value Performance Indicators (BVPI) are key performance indicators for the highway maintenance service.

BVPI 223	Condition of Principal Roads (Percentage of network where structural maintenance should be considered)
BVPI 224a	Condition of Non-Principal Classified Roads (Percentage of network where structural maintenance should be considered)
BVPI 224b	Condition of Unclassified Roads Roads (Percentage of network where structural maintenance should be considered)
BVPI 187	Condition of heavily used footways

8.1.2.2 Lancashire County Council has adopted one local performance indicator related to safety of the network – percentage of category 1 safety defects repaired within 24 hours of receipt of a defect report.

8.1.2.3 Performance indicator information is provided in supporting documentation to this LCC HMP.

8.1.2.4 Lancashire County Council has not adopted the Framework for Performance Indicators detailed in Appendix F of the UK CPHMM, but will seek to progressively introduce the indicators as part of implementation of the Transport Asset Management Plan and the Environment Directorate business planning processes.

8.2 Improvement Action Plan

8.2.1 This first edition of the Lancashire Highway Maintenance Plan benchmarks existing LCC policies, standards and processes against those contained in the UK CPHMM. The comparison with the UK CPHMM is tabulated in Appendix 1 (UK CPHMM Recommendations) and Appendix 2 (UK CPHMM Operational Standards & Intervention Levels). The Appendices detail Lancashire's proposals for bridging the performance gaps or provides reasons for the variation.

8.2.2 The County Council's action plan for improving the highway maintenance service is detailed in the supporting document "Highway Maintenance Strategy and Improvement Plan".

8.3 Monitoring and Review of Highway Maintenance Plan

8.3.1 Formal arrangements for the monitoring and review of the highway maintenance service are not well established. Improved arrangements will be developed and published in the Transport Asset Management Plan, and future editions of the Highway Maintenance Plan, as Asset Management Planning procedures and practices are developed, to ensure that policy and practice is updated with regard to changing circumstances and available information, e.g:

- Changes in character, use and condition of the network;
- Data arising from road traffic accident and incident records;
- Changes in legislation;
- Case law in respect of statutory responsibilities for safe operation of the highway;
- Data arising from performance management systems;
- Technical research on materials, treatments and condition survey techniques;
- Data arising from monitoring of service requests and complaints from users and the community;

- Review of the operation of the Winter Service and response to highway and weather emergencies.

8.3.2 Monitoring and review procedures will be extended to the supporting framework of Codes of Practice, Policy Statements and Notes for Guidance as they are prepared and/or updated.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
Policy Framework for Highway Maintenance		
R5.1 Use of Code by Authorities This Code of Practice should be used by authorities as a benchmark against which to develop and review local highway maintenance policy, and where necessary, to identify the nature and extent of local variations.	UK Code of Practice adopted subject to departures specified in the Highway Maintenance Plan.	
R5.2 Context of Corporate Policy Policies, priorities and programmes for highway maintenance should be developed within the context of the wider corporately defined strategic objectives of the authority and cross-cutting issues, such as regeneration or social inclusion, in order to maximise opportunities for added value and to identify and resolve any potential conflicts. Conversely, maintenance policy and priorities should also where necessary help to influence and shape the wider policy agenda.	Highway Maintenance Plan developed within the wider policy and strategic objective framework contained in the Corporate Plan, the Local Transport Plan and Directorate and Service Business Plans.	
R5.3 Context of Transport Integration Policies, priorities and programmes for highway maintenance should be developed within the context of the wider objectives for transport integration and network management, including strategies for public transport, walking and cycling, to ensure programme coherence, and to realise opportunities for added value.	Highway Maintenance Plan developed within the wider policy and strategic objective framework contained in the Corporate Plan, the Local Transport Plan and Directorate and Service Business Plans.	
R5.4 Principle of Sustainability Policies, priorities and programmes for highway maintenance should have particular regard to the principles of sustainability and the application of the 'precautionary principle'.	Relevant aspects detailed in the Highway Maintenance Plan.	Policies for sustainable management of the highways network will be further developed in the Lifecycle Plans intended to be developed as part of Transport Asset Management Planning process.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R5.5 Highway Asset Management Plans Policies, priorities and programmes setting out the longer term strategy for maintenance of the network and its contribution to the wider objectives of transport strategy should be set out in a Highway Asset Management Plan. The underpinning principle of this plan is to substantiate investment in highway maintenance by demonstrating value for money over the life of the asset.	First LCC Transport Asset Management Plan in course of preparation and intended to be adopted in due course.	
R5.6 Risk Management Authorities should adopt a risk management regime for all aspects of highway maintenance policy, investment and operations including: safety, service and condition inspections, setting levels of service, determining priorities and programmes, and procurement.	Existing arrangements for risk management are detailed in Highway Maintenance Plan Section 7.4.	Policies for risk management will be further developed in the Lifecycle Plans intended to be developed as part of Transport Asset Management Planning process.
R5.7 Publication, Adoption, and Incorporation of Highway Maintenance Policy and Strategy Policies, priorities and programmes for highway maintenance should be formally approved and adopted by authorities after consultation, published and incorporated into the Highway Asset Management Plan. The approval and adoption process should involve the authority's Executive and be explicit, transparent and inclusive.	Policies, priorities and programmes for highway maintenance are formally approved and adopted via the Local Transport Plan and Highway Maintenance Plan.	Arrangements for wider publication of policy documents to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan and will be further developed as part of the Transport Asset Management Planning process.
Context of Best Value for Highway Maintenance		
R6.1 Principles of Service Delivery Policies, programmes and service delivery arrangements for highway maintenance should provide for efficient, effective and economic maintenance of the highway asset, giving priority to the needs of the user, and support to the wider corporate objectives of the authority. Network safety and statutory duties should be prime considerations, even if not specifically identified by users.	Recommendation adopted via policies and procedures contained in the Local Transport Plan and Highway Maintenance Plan.	Policies for delivery of the highways service will be further developed as part of Transport Asset Management Planning process.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R6.2 Best Value reviews Best Value Reviews should seek to identify opportunities for highway maintenance to add value to other services provided by the authority and others, and also to reconcile service conflicts where these exist. This Code should be used in Best Value Reviews as an aid to benchmarking the policies and practices of the authority.	Recommendation adopted via policies and procedures contained in the Local Transport Plan and Highway Maintenance Plan. UK Code of Practice and subsequent revisions will be used to benchmark LCC policies	
R6.3 User and Community Consultation The views of users, the wider community and their representatives should be sought in the development and review of highway maintenance policies, programmes and priorities and subsequently reflected back to them.	Recommendation adopted via procedures described in Highway Maintenance Plan Sections 1.6 and 1.7.	Arrangements will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan,
R6.4 Reflecting User and Community Diversity Policies and procedures for consultation and information should take into account the diverse needs of all users and communities, particularly older or disabled people, ethnic minorities and vulnerable road users.		Arrangements will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan,
R6.5 Consultation with other Authorities Consultation should take place with adjoining authorities and agencies in the development and review of highway maintenance policies, programmes and priorities. The consultation should particularly address issues of consistency and the scope for joint or cross boundary working, and should be undertaken in conjunction with the Traffic Manager.	Existing LCC policies rely upon UK Code of Practice being applied consistently by authorities nationally. Other authorities within Lancashire involved in policy formulation via consultation.	Arrangements for cross boundary consultation and working will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R6.6 Information and Publicity Clear policies and procedures for providing timely information to users about maintenance work should be established in conjunction with the Traffic Manager, to enable those affected to make alternative arrangements where necessary to mitigate the affects of delay. The information and distribution should be appropriate to the scale and potential disruption of the works and use all available means, including the authority's website. Where practicable, information should be updated if works are delayed or extended.	Street works bulletins published on County Council website. Major maintenance schemes publicised via 'courtesy signs', mail drops, press releases and stakeholder consultation as appropriate.	Options for improving the extent and accuracy of roadworks information will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R6.7 Public Transport Reliability Particular attention should be paid to the quality and timeliness of information to providers and users of public transport, in view of the importance of maintaining confidence in the timetables of advertised services. Closures and diversions should be for the minimum period required for efficient completion of the works and authorities should ensure compliance with the planned date for their removal.	Street works bulletins published on County Council website. Major maintenance schemes publicised via 'courtesy signs', press releases and stakeholder consultation as appropriate.	
R6.8 Post-Completion Surveys Post-completion surveys of users and communities should be undertaken for a sample of maintenance schemes and regularly reviewed as a contribution to performance improvement.		Arrangements for post completion surveys will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R6.9 Management of User and Community Contacts Arrangements should be established to receive and deal with requests, compliments, complaints and other information from users and the community, including standards for response, arrangements for immediate or planned action, and recording of all transactions.	Postal enquiries and communications with Contact Centre are recorded in mail recording and Public Enquiry Manager systems respectively. Standards for response recorded in Communications Strategy,. Not all communications direct to back offices are currently recorded.	Arrangements for user and community contacts will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R6.10 Competence in User and Community Contact Personnel responsible for dealing with user and community requests, compliments, complaints and information should be competent to determine the relative urgency of response and to enable immediate action where necessary. This is of particular importance in the case of Contact Centres potentially dealing with a wide range of services, and clear checklists and procedures should be provided, together with relevant training and support.	Contact Centre staff trained and provided with information systems necessary to facilitate appropriate response to service requests and complaints.	
R6.11 Out of Hours Arrangements The arrangements should enable the authority to receive and respond to user and community requests for emergency action at all times.	Existing arrangements for dealing with out-of-hours emergencies detailed in Highway Maintenance Plan Section 6.4	Duty Officer arrangements to be reviewed as part of the further development of Area Management.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R6.12 Management of Claims Authorities should establish procedures and information systems in accordance with Appendix C of this Code to ensure efficient management of claims, whilst protecting the authority from unjustified or fraudulent claims.	Arrangements for management of claims detailed in Highway Maintenance Plan Section 7.4 – Risk Management.	Arrangements for management of claims will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R6.13 Monitoring of User and Community Contact The arrangements should provide for: the regular monitoring of requests, compliments, complaints, information and the nature and standard of responses and the subsequent review of practice in the light of this.	Public Enquiry Manager reports are currently reviewed monthly.	Arrangements for monitoring of customer contact and consequential service review to be reviewed and formally documented as part of the Highway Maintenance Strategy and Improvement Plan.
R6.14 Involvement of Employees, Contractors and Agents Arrangements should be established to facilitate the involvement of all authority elected members, employees, contractors and agents in building commitment and pride in the highway maintenance service and maximising individual contributions to the process of continuous improvement.	Council Council members, client officers and contracting staff all contribute to delivery of the highways service via a hierarchy of meetings and performance management systems. Liaison and consultation with District Council members is carried out through a series of Lancashire Local Committees	
Legal Framework for Highway Maintenance		
R7.1 Approval of Variations ANY VARIATIONS IN POLICIES AND PRACTICE FROM THAT IDENTIFIED IN THIS CODE SHOULD BE DERIVED FOLLOWING A RISK ASSESSMENT, THEN APPROVED, ADOPTED AND PUBLISHED BY THE AUTHORITY. THE APPROVAL AND ADOPTION PROCESS SHOULD INVOLVE THE AUTHORITY'S EXECUTIVE AND BE EXPLICIT, TRANSPARENT AND INCLUSIVE.	Variations from the Code of Practice are specified in the Appendices of the Highway Maintenance Plan.	
R7.2 Consistency of Application Policies and practice should be clearly defined, consistently applied and regularly reviewed. They should include a regime of safety inspection, and response arrangements defined following risk assessment	Inspection and reactive response policies detailed in Code of Practice on Highway Safety Inspections.	Necessary to ensure that policies are more widely understood and consistently applied, e.g. in 'claims handling' sections of Environment Directorate and Legal Services.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R7.3 Understanding Legal Obligations All employees, elected members, contractors and agents for the Authority involved in the procurement or delivery of highway maintenance services should understand the extent and nature of the Authority's legal liabilities and risks for highway maintenance. This is particularly important with regard to the distinction between duties and powers, and how these relate to their particular responsibilities.	Information disseminated by Plans, Codes of Practice, Guidance Notes, Policy Statements and bulletins available electronically to all elected members and officers involved in the delivery of the highways maintenance service.	Necessary to ensure that legal duties, powers and responsibilities are clearly defined in all reports relating to policy changes and programme approvals.
R7.4 Comprehensive and Accurate Records Comprehensive and accurate records should be kept of all highway maintenance activities undertaken, particularly safety and other inspections, identifying the time and nature of any response, including nil returns and subsequent required follow up response.	Highway maintenance activity recorded in Exor Maintenance Manager system and Works Ordering System.	
R7.5 Co–ordination of Records Arrangements should be established to ensure the effective co–ordination of all highway maintenance records with other relevant record systems, including road accident information, together with a programme for regular review. The use of a relational database and GIS is desirable.	Relevant information displayed graphically on Environment Directorate GIS, though comprehensive "cross-database" management reports are not readily accessible.	Arrangements for monitoring of highway data to feed into service reviews to be developed as part of Asset Management Planning process.
R7.6 Identification and Response to Changes Arrangements should be established for early identification of both planned and evolving changes to the highway network and to traffic distribution and characteristics, in order that corresponding changes can be made, where necessary, to the hierarchy, frequency of inspection and response for those elements of the network affected.		Arrangements for monitoring of highway data, network changes and changes in traffic patterns to feed into service reviews to be developed as part of Asset Management Planning process.
Maintenance Strategy and Network Hierarchy		
R8.1 Development of Maintenance Strategy The strategy for highway maintenance should be developed to deliver maintenance policy, to support corporate goals, local transport and network management policies. The Strategy should be developed through the Highway Asset Management Plan.	Highway maintenance strategy detailed in Highway Maintenance Plan Section 2.3 and in the Improvement Strategy.	Transport Asset Management Plan to be prepared in accordance with CSS Framework for Highway Asset Management and good practice guidance developed by the Midland Service Improvement Group.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R8.2 Objectives and Scope of Strategy The objectives of the strategy related to the individual maintenance categories should be clearly defined in terms of safety, serviceability and sustainability. The strategy should incorporate all maintenance categories, and have regard to the differing requirements of the area, including rural and urban differences.	Highway Maintenance Plan prepared in accordance with recommendations of UK CPHMM.	
R8.3 Network Inventory Authorities should prepare a detailed inventory or register of all highways assets requiring maintenance together with information on the scale, nature and distribution of use. The nature and extent of highway inventory collected should be such as to provide fitness for purpose, meet business case criteria and be subjected to risk assessment.	GIS based network inventory has existed for approximately 15 years. Additional information, including traffic data, collision data, third party claims data and other useful highway management information have been progressively added to the GIS via the Mapzone application. However, arrangements for updating the original inventory has relied, in part, upon input from Areas/Agents and arrangements vary in terms of nature and degree of commitment across the County.	Arrangements for the review and updating of inventory to be developed as part of Asset Management Planning process.
R8.4 Storage and Updating of Inventory The inventory should ideally be incorporated into a GIS system, together with other related information, including highway condition surveys, for ease of interpretation by non-technical stakeholders, and regular updating. No authority should commence inventory data collection until assured arrangements for updating are in place	GIS based network inventory has existed for approximately 15 years. Additional information, including traffic data, collision data, third party claims data and other useful highway management information have been progressively added to the GIS via the Mapzone application. However, arrangements for updating the original inventory has relied, in part, upon input from Areas/Agents and arrangements vary in terms of nature and degree of commitment across the County.	Arrangements for the review and updating of inventory to be developed as part of Asset Management Planning process.
R8.5 Network Hierarchy The strategy should define hierarchies for all elements of the highway network, including carriageways, footways, and cycle routes. The hierarchy should take into account current and expected traffic characteristics and use, having regard to Local Transport Plans and Rights of Way Improvement Plans.		Arrangements for the review and updating of hierarchy to be developed as part of Asset Management Planning process.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R8.6 Compatibility of Hierarchies Hierarchies for maintenance and network management should be common, or at least compatible with each other.	A Functional Road Hierarchy has been adopted, to be progressively developed as the overarching hierarchy for maintenance and network management purposes.	
R8.7 Local Influences on Hierarchy The hierarchy should also take account of local circumstances, for example the influence of schools and hospitals or particular concentrations of older, disabled or other potentially vulnerable users. It should also support the local accessibility strategies.	The hierarchy has been developed in consultation with local maintenance and network management engineers able to consider the proposed hierarchy with a local perspective.	
R8.8 Integrity of Facilities for Walking and Cycling Particular account should be taken of the need for continuity in routes for cycling and walking, and the need for consistent standards between segregated and shared sections of routes. This principle should also apply where elements of the Public Rights of Way network form significant links within the local walking and cycling network.	Authority has developed policies for walking and cycling that are considered in determining maintenance priorities, and such policies are reflected in the Functional Road Hierarchy.	Arrangements for the review and updating of hierarchy to be developed as part of Asset Management Planning process.
R8.9 Consistency with Adjoining Authorities The strategy should be co–coordinated with adjoining authorities, including those responsible for maintenance of the strategic network, to ensure that maintenance practice, standards and programmes meet road users' reasonable expectations for consistency, minimise disruption to users and the community and provide value for money.	No formal arrangements for strategy and programme coordination with adjoining authorities.	Arrangements for cross boundary consultation and coordination will be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R8.10 Designing for Maintenance Authorities should establish arrangements to ensure that all highway improvement schemes including traffic management, environmental schemes and minor works are designed to facilitate future maintenance in accordance with the principles of this Code and informed by developing local experience. Consideration should be given to introducing formal maintenance audit on a selective basis to assist this process.	Schemes are designed with regard to future maintenance considerations and are subject to safety audits but not formal maintenance audits.	Arrangements for formal Maintenance Audits to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R8.11 Identification of Maintenance Implications In accordance with the second round of Local Transport Plan guidance any additional maintenance costs arising from all new and improved infrastructures should be explicitly identified and taken into account in evaluating the whole life costs of the scheme. Where schemes provided in conjunction with new development are likely to involve unusual maintenance requirements and costs, consideration should be given to securing a commuted sum from the developer for such additional maintenance costs.	Development proposals considered for future maintenance implications and commuted sums secured in accordance with the LCC Code of Practice on Highway Status and Adoption.	Arrangements for reporting maintenance implications and mitigating future maintenance liability of LCC and other jointly funded improvement schemes to be implemented in the future to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
Inspection Assessment and Recording		
R9.1 Inspection and Survey Regime Authorities should develop and implement an inspection and survey regime to provide accurate, timely and relevant information on the condition of the highway network, including cycle routes and footways, as a basis for assessment of local maintenance need. The regime should include regular safety inspections and condition surveys as a minimum.	Arrangements for assessing and monitoring network condition are detailed in Highway Maintenance Plan Section 4.	The need to introduce formal service inspection systems for highway trees, culverts and safety fences to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R9.2 Risk Assessment Frequency of safety inspections, together with the nature and speed of response to identified defects, should be developed from a process of risk assessment including a risk register. Any variation in standard from this Code should be identified, approved and adopted by authorities. The approval and adoption process should involve the authority's executive and be explicit transparent and inclusive.	Departures from CPHMM documented in Highway Maintenance Plan	
R9.3 Inspection of Highway Trees Highway safety inspections should include highway trees, including those outside, but within falling distance of, the highway. Inspectors should take note of any encroachment or visibility obstruction and any obvious damage, ill health or trip hazards, but a separate programme of tree inspections should be undertaken by arboricultural advisors. Authorities should include some basic arboricultural guidance in training for highway inspectors.	Classified roads tree inspection carried out 2007/8. Un-classified roads trees to be inspected 2009/10 ($^1/_3$), 2010/11 ($^1/_3$) and 2011/12($^1/_3$)	Continuing arrangements for inspection and management of highways trees to be reviewed as part of implementation of the Transport Asset Management Plan – soft landscaping lifecycle plan.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R9.4 Highway Tree Policy Authorities should develop, with arboricultural advice, a policy for the installation management, removal and replacement of highway trees. The policy should recognise the amenity and nature conservation value of trees, but also seek constructively to manage ongoing risk to the authority.		
R9.5 Recording of Information Information from all inspections and surveys, together with any immediate or programmed action, including nil returns, should be accurately and promptly recorded, monitored, and utilised with other relevant information in regular reviews of maintenance strategy and practice. This is particularly relevant in the case of safety inspections.	Inspection and survey information is recorded in Exor Maintenance Manager and PMS.	Formal arrangements for the recording of inspection and survey information to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R9.6 Highway Condition Survey Regime The highway condition survey regime should reflect the different requirements of the network based upon the defined hierarchy, and may be based on machine collected data, coarse visual walked or driven surveys, according to particular circumstances, taking account of statutory requirements.	Highway condition survey regime currently driven by changes in requirements for reporting BVPI information.	Highway condition survey regime to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R9.7 Scope of Highway Condition Survey The highway condition survey regime will need to provide as a minimum the condition information necessary to determine and monitor relevant statutory indicators. It should, however, also provide information to support more detailed assessment and monitoring of highway elements, for example surface and road edge condition, in order to establish a Highway Asset Management Plan, and to assist the programming of maintenance.	Code compliant systems exist	

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R9.8 Co-ordination with NRMCS and SRMCS The highway condition survey strategy should be compatible with the requirements for surveys of strategic and local road condition specified through NRMCS and SRMCS and to facilitate the provision of information to national surveys, as a basis for assessment of national maintenance need, where this applies.	The authority participates in NRMCS.	
R9.9 Accuracy and Reliability of Data Highway condition assessment data from SCANNER and CVIs will have considerable influence on statutory indicators, spending levels and priorities. It will need to be accurately referenced, complete and repeatable, and high standards of quality management and control should therefore be applied to its specification, procurement, collection and processing.	Code compliant systems exist	
R9.10 Visual Survey Data Processing for Structural Condition Index Survey data to be used for highway condition assessment purposes should be processed by a pavement management system accredited to UKPMS, in accordance with the currently approved set of Rules and Parameters, to provide condition indices and priority for network sections based on condition.	Code compliant systems exist.	
R9.11 Skidding Resistance Strategy Authorities should publish a skid resistance strategy, as part of their HAMP. The strategy, which should be informed by risk assessment, should address all relevant issues identified by this Code, including provision of Slippery Road signing, frequency of surveys, approach to setting investigatory levels, priorities for subsequent treatment and approach to dealing with early life skid resistance.	Strategy defined in LCC Code of Practice on Skidding Resistance (January 2002)	Strategy will be regularly reviewed in accordance with the principles of the UK CPHMM.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R9.12 Developments in Survey Technology Regular reviews of survey strategy should take account of new technologies and methods. This could include the use of in-vehicle location and communications technology to record the position of defects and to ensure that they are instantaneously recorded with the works gang.		Formal arrangements for the review of survey strategy to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R9.13 Training Authorities should adopt and support relevant highway training and vocational qualifications (NVQs, SVQs and the City & Guilds 6033 Scheme) which establish the competence of all those involved in highway maintenance, having particular regard to the training and qualification of personnel engaged in highway inspection and survey tasks.	Recommendation not currently met, though appropriate staff supported through NRSWA accreditation and Construction Skills Certification Scheme qualifications.	Formal arrangements for securing the competence of all those involved in highway maintenance, having particular regard to the training and qualification of personnel engaged in highway inspection and survey tasks, to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
Condition, Standards and Investigatory Levels		
R10.1 Definition of Standards or Warning Levels Authorities should prescribe service standards for all aspects of highway maintenance, developed through risk assessment. These should define the nature and extent of works to be undertaken in particular circumstances of maintenance need, and the level of urgency that would be assigned to the response. Such standards should relate to the core objectives of safety, serviceability, sustainability and customer satisfaction.	Service standards defined in the Code of Practice on Highway Safety Inspections and the Highway Maintenance Plan.	
R10.2 Consistent and Benchmarked Standards Authorities have discretion to define and review their own standards in the light of local circumstances, but should benchmark these against the default values identified by this Code for the purpose of best value comparison, and apply them consistently.	Standards benchmarked against those contained in UK CPHMM see Highway Maintenance Plan Appendices	

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R10.3 Application of UKPMS System Intervention Levels The standard System Intervention Levels for application of maintenance treatments prescribed within the currently approved set of UKPMS Rules and Parameters and other DfT advice should be used for consistent calculation of condition indices and statutory indicators. Authorities may vary these at their discretion to consider other options for economic prioritisation based on condition. Any variations from the current version of UKPMS Rules and Parameters utilised by the authority should be recorded for LTP monitoring purposes, and stated within their Highway Asset Management Plan.	Code compliant UKPMS system in place.	
R10.4 Standards for Regulatory Functions and Utilities Management Authorities should establish standards and response arrangements for the regulatory elements of highway maintenance, in conjunction with the Traffic Manager, who has a statutory responsibility for network management.	Standards for regulatory functions and utilities management are detailed in Highway Maintenance Plan Section 5.11.	Standards and response arrangements to be reviewed and extended as part of implementing corporate restructuring to meet the Council's statutory duty under the Traffic Management Act.
R10.5 Standards for User and Community response In addition to 'operational' standards, authorities should establish standards and response arrangements for providing information and responding to customer contacts, consistent with corporate standards.	Standards for user and community response detailed Highway Maintenance Plan Section 7.3	
Performance Management		
R11.1 Performance Management Regime Authorities should establish an integrated performance management regime for highway maintenance, highway improvement and network management, to measure the contribution of each to the core objectives of customer service, safety, serviceability and sustainability.	Existing performance management measures are focused on BVPI's and a small number of Local Performance Indicators contained in the Corporate, Directorate and Service Business Plans.	Wider framework of Performance Indicators and Outcome Targets to be developed as part of implementing the Transport Asset Management Plan, Service Business Plans and the Highway Maintenance Strategy and Improvement Plan.
R11.2 Performance Indicators The regime should include relevant statutory and local indicators and preferably measure performance against outcomes or, where this is not practicable, against outputs.		

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R11.3 Local Performance Indicators Authorities should adopt Local Performance Indicators that comply with this Code and are identical or similar to others so far as possible, in order to facilitate comparison and development of good practice.		
R11.4 Contract Performance Indicators Contract performance indicators for partnering contracts should so far as possible be designed to be compatible with statutory and local indicators for the service, supplemented as necessary by lower level indicators to monitor day to day operations, financial transactions and human relations matters.	Existing performance management measures are focused on BVPI's and a small number of Local Performance Indicators contained in the Corporate, Directorate and Service Business Plans.	Wider framework of Performance Indicators and Outcome Targets to be developed as part of implementing Service Business Plans, the Highway Maintenance Strategy and Improvement Plan and the Transport Asset Management Plan.
R11.5 Targets and Trajectories Realistic but challenging targets should be included to drive continuous improvement over a minimum period of one year, with an optimum period of five years. Trajectories should be developed where appropriate to track progress towards targets.		
R11.6 Performance Improvement Authorities should develop and apply a strategy for performance improvement adopting one or more of the tools identified in this Code and build this into their procurement arrangements.		
R11.7 Sharing Performance Information Authorities should, where contractually possible, arrange to share performance information in the interests of the wider continuous improvement agenda, through participation in benchmarking networks and similar arrangements.	Existing performance management measures are focused on BVPI's and a small number of Local Performance Indicators contained in the Corporate, Directorate and Service Business Plans.	Benchmarking will be further developed through participation in benchmarking networks such as Midlands Service Improvement Group and National Benchmarking Club for Highway Works as frameworks for performance indicators are developed.
R11.8 Use of CIPFA Code of Practice The development of financial performance information for benchmarking purposes should for consistency be based upon the categories and definitions contained in the CIPFA Code of Practice.	CIPFA Code of Practice adopted where consistent with corporate accounting procedures.	

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
Programming and Priorities		
R12.1 Defining Priorities. Priorities for highway maintenance activities should be based upon the objectives and outcomes for each maintenance category defined in the Highway Asset Management Plan, and in accordance with the principles of best value and the legal obligations of the authority. The process should be clear, transparent and consistently applied.	Priorities for highway maintenance activity detailed in Highway Maintenance Plan Section 5.	
R12.2 Priorities for Programmed Maintenance Initial priorities based on network condition for programmed maintenance should be established utilising the output of technical (and economic prioritisation) processing from a UKPMS accredited Pavement Management System. This is provided for in UKPMS and will be enhanced to take account of ongoing research and developments.	UKPMS data used in preparation of the Principal Road programme.	Further development of PMS required enabling extension to entire network and improvements in user friendliness.
R12.3 Value Management Value Management should be applied to highway maintenance schemes in order to balance priorities and improve value for money. In particular it can be used to add value to Local Transport Plan priorities, making 'reasonable adjustments' to facilitate access for disabled people, required by the Disability Discrimination Act 1995, and contributing to the quality of public space.	Opportunities exist to apply principles of value management to the maintenance programme via local input into programme development and scheme design and coordination of works programmes by the Area Managers.	Formal highway scheme audit system to be developed requiring audits for safety, maintainability, accessibility, and sustainability.
R12.4 Programme Assembly Maintenance schemes should be assembled into programmes of work to coordinate with other highway maintenance schemes, improvement schemes, and works by utilities and developers in co-operation with the authority's Traffic Manager, in order to minimise disruption to users and to meet the requirements of the Traffic Management Act 2004, where applicable.	Coordination of works programmes currently undertaken via system of local coordination meetings and coordination of works programmes by the Area Managers in accordance with the principles of the Traffic Management Act.	Arrangements for works coordination will be further developed following the appointment of the authority's Traffic Manager and implementation of the Directorate restructuring proposals incorporating the Area manager's structures.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R12.5 Extent of Programmed Maintenance Programmes for all maintenance schemes should be an integral part of the Highway Asset Management Plan and reviewed at least yearly to ensure that they continue to meet the authority's safety, serviceability and sustainability objectives. Generally programmes should be drawn up over a rolling three year period.		Forward works programmes will be developed as part of implementing the Transport Asset Management Plan and the Highway Maintenance Strategy and Improvement Plan.
R12.6 Consultation on Maintenance Programme Consultation should be undertaken with the authority's Traffic Manager, adjoining authorities, other agencies, public transport operators and the local community on the highway maintenance programme.	Consultation undertaken as part of the LTP process. Local elected member and wider community involvement obtained via Lancashire Local meetings (see HMP section 1.7)	
Winter Service		
R13.1 Winter Service Policy Authorities should formally approve and adopt policies and priorities for Winter Service, which are coherent with wider objectives for transport integration and network management, including strategies for public transport, walking and cycling. They should also take into account the wider strategic objectives of the authority and 'cross-cutting' issues, such as regeneration or social inclusion.	Policies included in the Winter Code of Practice	Updated annually as necessary
R13.2 Winter Service Operational Plan Authorities should formally approve, adopt, and publish, in consultation with users and key stakeholders, a Winter Service Operational Plan, based on the principles of this Code.	Winter Code of Practice plus supporting operational documents	Winter Service Plan which consolidates various operational documents in preparation for 2008/9.
R13.3 Winter Service Route Planning The Winter Service Operational Plan should define treatment route plans for carriageways, cycle routes and footways based upon the general maintenance hierarchy, but adapted to take into account the factors identified by this Code.	Winter Code of Practice plus supporting operational documents	To be included in the Winter Service Plan

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R13.4 Co–ordination and Co–operation Winter Service policy and the Winter Service Operational Plan should be coordinated with adjoining local and strategic authorities, to ensure that route planning, and treatment regimes meet road users reasonable expectations for consistency, and provide value for money.	Winter Code of Practice plus supporting operational documents	To be included in the Winter Service Plan
R13.5 Publication and Information Authorities should make widely available for users and the community a non-technical summary of the Winter Service Operational Plan, including plans of the treated network, together with guidance on safe use of the network. They should also establish arrangements for local radio information.	Winter Service information published on the LCC web site	To be included in the Winter Service Plan
R13.6 Annual Review All aspects of the Winter Service Operational Plan should be reviewed annually in consultation with users and key stakeholders, to take account of changing local circumstances.	Annual review undertaken	
R13.7 Weather Forecasting and Detection Systems Authorities should take full advantage of weather forecasting information services.	Code compliant systems and procedures in place	
R13.8 Service Delivery Arrangements Authorities should review annually arrangements for delivering Winter Service in consultation with all service partners including consultants, contractors, District and local councils and volunteer wardens, to ensure clear terms of reference for the provision and management of all resources, health and safety and insurance.	Relevant partners involved in annual service delivery review	
R13.9 Annual Technical Review All vehicles, plant, fuel provision, equipment and maintenance arrangements should be checked annually in order that any necessary action can be taken to ensure full operational service status prior to the Winter Service season. This should include checking the calibration of all de-icing equipment and spreaders.	Code compliant systems and procedures in place.	

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R13.10 Personnel, Training and Development Training and development needs, in particular those relating to health and safety, of all personnel should be reviewed annually, in order that any necessary training can be provided prior to the Winter Service season.	Code compliant systems and procedures in place.	
R13.11 Salt Purchase and Storage Authorities should manage the purchase, storage and use of salt and other deicing materials consistently with the principles of best value and sustainability and consider the benefits of consortia purchasing.	Code compliant systems and procedures in place.	
R13.12 Information Recording and Monitoring Comprehensive and accurate records should be kept of the all Winter Service activity, including timing and nature of all decisions, the information on which they were based, and the nature and timing of all treatments. The use of data loggers should be considered to assist with this process.	Code compliant systems and procedures in place.	
R13.13 Vehicle Location Recording Authorities should make use, wherever possible, of electronic vehicle location systems together with automatic recording of salt spreading. This will provide corroboration of service delivery in cases where failure to salt is alleged.	GPS vehicle location and tracking system has been installed on most of the fleet and its use will be progressively developed.	Complete integration of GPS in the Winter Service fleet.
Weather and Other Emergencies		
R14.1 Planning for Climate Change Authorities should research the likely effects of climate change for the delivery of highway maintenance services, taking into account their geography, topography and geology. They should identify risks particular to the authority, and plan, so far as practicable, to mitigate them.	Existing arrangements for weather and other emergencies are detailed in Section 6 of the Highway Maintenance Plan.	Operational plans and procedures to be reviewed and extended as part of the Highway Maintenance Strategy and Improvement Plan.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R14.2 Severe Weather Emergencies Plan Authorities should establish, in consultation with others, including emergency services and relevant agencies, a Severe Weather Emergencies Plan, containing operational plans and procedures, to enable timely and effective action by the highway maintenance service to mitigate the effects on the highway network.		
R14.3 Content of Operational Plans The content of operational plans and procedures should be based on those developed in respect of Winter Services and summarised in Appendix H of this Code, adapted to suit the particular risks and requirements for the situation in question. It will be essential to address specific health and safety issues relevant to each emergency.		
R14.4 Planning for Civil Emergencies Authorities should ensure that the role and responsibilities of the highway maintenance service in responding to emergencies are defined in the Civil Emergency Plan, maintained by the authority's designated Emergency Planning Officer, that these are understood by all personnel involved, and that all necessary contingency planning is in place.	Existing arrangements for weather and other emergencies are detailed in Section 6 of the Highway Maintenance Plan.	Operational plans and procedures to be reviewed and extended as part of the Highway Maintenance Strategy and Improvement Plan.
Materials and Treatments		
R15.1 Policy for Sustainable Development Authorities should prepare and adopt a policy for sustainable development in highway maintenance to forge the link between overarching council objectives and works undertaken on the network. This policy will provide a means of articulating in meaningful terms and applications, goals and aims of the highway maintenance service.	Policies, plans and procedures contained in the Highway Maintenance Plan have been developed in accordance with the principles of sustainability.	
R15.2 Sustainable Highway Maintenance Sustainability appraisals should be fundamental to Best Value Reviews of highway maintenance, as they can open up new ideas for continuous improvement and stimulate innovation and creativity.		Performance management and review of highway maintenance activities, in terms of the wider issues of sustainability, will be implemented as part of the asset management planning process.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R15.3 Maximising Environmental Contribution Materials, products and treatments adopted for highway maintenance schemes should routinely be appraised for environmental contribution and for wider issues of sustainability. Authorities should consider undertaking an environmental assessment of their highway maintenance strategy and environmental audit of a sample of individual schemes in order to develop good practice.		Formal highway scheme audit system to be developed requiring audits for safety, maintainability, accessibility, and sustainability (see Highway Maintenance Strategy and Improvement Plan).
R15.4 Application of Technical Standards Authorities should generally apply approved technical standards for materials and processes, and ensure the provision of a quality testing, control and management regime consistent with the principles of continuous improvement. The development of the industry 'sector' schemes is particularly helpful in this context and these should be supported.		
R15.5 Balancing Standards and Sustainability Subject to risk assessment, authorities should encourage the relaxation of technical standards where this would bring significant benefits of sustainability.	Policy reviews have regard to sustainability issues; e.g. COP on Highway Status and Adoption establishes approval process for sustainable drainage systems and departures from design standards.	Ongoing review of policies and operational standards.
R15.6 Consistency with Character Authorities should ensure that materials, products and treatments for any scheme are consistent with the character of the area and, for example, do not contribute to the 'urbanisation' of attractive rural areas. Conversely, in heavily trafficked urban areas materials should be of sufficiently high quality to avoid premature deterioration and consequent poor appearance.	Links not firmly established in HMP, though Recommendation applied in practice through local input to scheme design process. Policy for flagged footways detailed in Section 5.3.9 of the HMP.	Develop Code of Practice on the environmental impact of highway works as part of the Highway Maintenance Strategy and Improvement Plan.
R15.7 Minimising Clutter Authorities should take opportunities to remove or simplify redundant signing wherever possible in conjunction with planned maintenance works.		In conjunction with other authorities with an interest in the street scene, a formal highway scheme audit system is to be developed, requiring audits for safety, maintainability, accessibility, and sustainability (see Highway Maintenance Strategy and Improvement Plan).

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R15.8 Nature Conservation and Biodiversity Highway verges, trees and landscaped areas should be managed with specialist advice, in accordance with the principles of a Biodiversity Action Plan to meet legal obligations, support conservation and add landscape value, with specialist advice where necessary.	County Council policies and objectives stated in HMP Section 5.6. Formal links between objectives and action not firmly established, though principles applied in practice.	Develop policy statement on the implications of highway maintenance on biodiversity and nature conservation as part of the Highway Maintenance Strategy and Improvement Plan.
R15.9 Depots and Materials Storage Depots and storage areas for materials should be managed to mitigate visual intrusion and to avoid pollution, in accordance with legal and community obligations.	Depots are often in urban areas with the potential to cause inconvenience and disturbance to residents. Materials storage areas are well managed and often fenced.	Strategic study of depot location and future requirements needs to be undertaken in conjunction with LCES.
R15.10 Waste Management Authorities should define and apply policies for the minimisation and sustainable management of waste arising from highway maintenance activities, including the encouragement of materials recycling.	LCC encourages recycling of materials wherever possible and all unusable materials are disposed of in licensed disposal sites.	
R15.11 Purchasing Authorities should define and apply policies for the sustainable purchasing of materials and services including encouragement to utilise products manufactured from recycled material.	All product sources are explored and those using recycled constituents are frequently purchased. Where appropriate, policies direct use recycled material specified as preferred option e.g. use of recycled material in footways (Estate Road Specification), recycled plastic street furniture (HMP)	Ongoing review of policies and operational standards.
Procurement and Service Delivery		
R16.1 Best Value Procurement Procurement of highway maintenance services should be based on the principles of best value, in accordance with standing orders of the authority, to facilitate creativity in service delivery and finance by potential service providers.	Lancashire Highways Partnership Contract arrangements with LCES based on a partnership seeking to achieve continuous improvement and efficiency benefits. Contract benchmarked against Fylde Works Contract awarded via competitive tendering.	Contracts to be extended for two years and future contractual position to be developed.
R16.2 Performance Based Contracts Contracts for the provision of highway maintenance services should be performance based so far as practicable, and should be framed so as to facilitate continuous improvement.	Works Contract arrangements with LCES based on a partnership seeking to achieve continuous improvement and efficiency benefits. Contract benchmarked against Fylde Works Contract	Future contractual position to be developed.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R16.3 Procurement Options Authorities should assess a range of procurement options for the delivery of highway maintenance services. The principle of continuous improvement is more likely to be achieved through longer term performance based partnerships than through relatively short term conventional contracts.	awarded via competitive tendering. Contracts incorporate contract performance management systems based upon the principles of the Construction Industry key Performance Indicators (CPHMM Appendix G)	
R16.4 Inclusion of Related Functions In assessing options for the scope and content of highway maintenance contracts, authorities should consider the extent to which they should include other related highway construction and management functions.	Present Agreements with Works Contractors allow for the future development to include wider street scene and grounds maintenance functions. Contract flexibility deliverable by contract based on Partnering principles.	
R16.5 Contract Flexibility In the light of the significant developments in highway management procurement currently taking place, contracts should, so far as practicable, provide for flexibility to incorporate emerging practice. Such contracts should be reviewable over perhaps a 5 year period.	Contract flexibility deliverable by contract based on Partnering principles.	
R16.6 Inter-Authority Collaboration Authorities should consider the extent of potential benefits from collaboration with other authorities.	Collaboration with other authorities via Residual Highways Agreements and Lancashire Local Committees.	Adopt where a robust business/operational case can be demonstrated.
R16.7 Agency Arrangements Where an authority has agreed agency arrangements with other authorities to undertake aspects of highway maintenance on behalf of the authority, the strategy should set out the agreed management accountabilities and financial arrangements.	Council resolved not to renew LHP Agreements when they expired in June 2006. However, Residual Highway Agreements have been developed to provide for greater co-ordination of street scene activities and to seek the most efficient mechanism for service delivery.	
R16.8 Local Economy Authorities should assess the implications of long term integrated contracts for the local economy, and should consider specifying a proportion of local suppliers or subcontractors where appropriate.		

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
Financial Management		
R17.1 Financial Information and Planning Strategies for highway maintenance contained in the Highway Asset Management Plan and the Local Transport Plan should be supported by clear financial planning and information management arrangements, based on high standards of corporate governance.	Financial planning for highway maintenance currently based on objective needs assessment and inventory – both of which reflect changes in network and hierarchy. However the strategic and policy base for bidding for, and allocation of, revenue funding requires strengthening through the Transport Asset Management Plan.	Strengthen the strategic and policy base for bidding for, and allocation of, revenue funding through the Transport Asset Management Plan, incorporating priority based budgeting.
R17.2 Sources of Finance Financial planning arrangements should consider the scope for introducing new sources of finance, for example through PFI, Prudential Code and developers' contributions.	Arrangements exist for securing alternative sources of finance for improvement works for example via developer contributions and partnerships with private and public sector partners.	Scope for securing addition funding e.g. via PFI, prudential borrowing etc to be reviewed as part of the Highway Maintenance Strategy and Improvement Plan.
R17.3 Budget Preparation The preparation of budgets for highway maintenance should reflect the *Code of Practice on Local Authority Accounting in the UK* and be based on a rolling three-year period consistent with the Highway Asset Management Plan.	Budget preparation in accordance with CIPFA Code of Practice, but not presently developed over a 3 year period.	Forward works programmes will be developed as part of implementing the Transport Asset Management Plan and the Highway Maintenance Strategy and Improvement Plan.
R17.4 Financial Accountability Systems for financial management should recognise the need for the delegation of financial accountability to be consistent with delivering high standards of customer responsiveness.	Budgets and financial accountability are delegated within defined limits to promote responsiveness to needs of service users.	Financial procedures to be reviewed following restructuring of Environment Directorate.
R17.5 Accounting Flexibility Arrangements should be established for carry over of expenditure at year end, which recognise the sensitivity of highway maintenance works to variable weather conditions, particularly in the pre-year end period.	Some year end carry-over is permitted via devolved financial management.	Arrangements must be consistent with corporate accounting procedures
R17.6 Weather Sensitivity Consideration should be given to special financial arrangements, including the use of reserves to deal with extended periods of unexpected weather, the frequency of which is expected to increase.	Arrangements in place to make financial provision for extended or exceptional periods of bad weather.	

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R17.7 Budgetary Control Standards and procedures for budgetary control should be established, consistent with the principles of this Code. Systems should preferably enable easy and electronic data exchange between client and major service providers.	Code compliant systems exist and are being continuously improved by the development of the electronic Works Ordering System.	Formal arrangements for financial monitoring to be reviewed following Environment Directorate restructuring and improved arrangements developed.
R17.8 Asset Valuation Authorities should prepare for the introduction of Whole of Government Accounts in 2006/7. This will result in the need for valuation of highway assets. Guidance is given in the CSS document *Asset Valuation of Highway Infrastructure Assets*.		Arrangements to be developed via implementation of the Transport Asset Management Plan.
Monitoring Review and Reporting		
R18.1 Risk Management Approach Arrangements should be made for frequent and regular monitoring of overall network management performance, including effectiveness of inspection, information systems and response arrangements, and changes introduced where necessary to ensure that personal and financial risks both to users and the authority are managed effectively.	Links not firmly established in HMP	To be developed through Business Plans and Transport Asset Management Plan.
R18.2 Monitoring of Indicators, Targets and Outcomes Arrangements should be made for monitoring of core objectives and outcomes, including statutory and other key indicators of network condition and performance, and changes introduced where necessary to ensure that progress towards targets is maintained.	Links not firmly established in HMP	To be developed through Business Plans and Transport Asset Management Plan.
R18.3 Monitoring of Procurement Regime Arrangements should be made for monitoring the performance of procurement arrangements and the extent to which these are contributing to the pursuit of continuous improvement, and changes introduced where necessary to ensure that the necessary progress is maintained.	Links not firmly established in HMP	To be developed through Business Plans and Transport Asset Management Plan.
R18.4 Enhancing Benchmarking Information Arrangements should be made to share ongoing monitoring and benchmarking information with others in the interests of the wider best value agenda.	Links not firmly established in HMP	To be developed through Business Plans and Transport Asset Management Plan.

APPENDIX 1 : COMPARISON OF LCC PRACTICE WITH CODE OF PRACTICE		
CPHMM Recommendation	**Existing LCC Practice**	**Action Required**
R18.5 Monitoring Research and Developments Arrangements should be made to ensure that the results of ongoing research are monitored and incorporated into highway maintenance practice, where desirable, and with respect to local circumstances.	Links not firmly established in HMP	To be developed through Business Plans and Transport Asset Management Plan.

APPENDIX 2 : SUMMARY OF DEPARTURES FROM UK CPHMM AND INTERVENTION LEVELS			
Feature	**LCC Standard**	**CPHMM Standard**	**Comment**
Cycleway hierarchy	Cycle tracks designated in hierarchy.	Cycle lanes, cycle tracks and cycle trails recommended as distinct categories in hierarchy.	Cycle lanes inspected with roads as per cphmm standard. Cycle trails not generally maintained as highways.
Safety inspections on secondary distributor roads (NP classified)	4 per year	12 per year	LCC frequency developed from cop for highway safety inspections. Formal risk assessments to be documented for departures from CPHMM recommendations (see highway maintenance strategy and improvement plan)
Safety inspections on link roads type 4a	2 per year	4 per year	
Selected back streets	Nil	1 per year	
Service inspections – general	No formal system of service inspections. A number of features relating to network serviceability are, however, inspected as part of highway safety inspections for notification to highways superintendents. In addition to safety inspections, detailed inspections will be prompted by a number of circumstances: • Inspections carried out as part of a nrswa inspection. • Ad-hoc inspections required by perceived conditions. • Investigatory inspection prompted by service user enquiry. • Investigatory inspection prompted by feedback from routine maintenance operations.		
Piped highway drainage systems	Cleaned as required. Action prioritised with regard to resource availability and priority objectives.	Cleaned as required but at not more than 10 year intervals.	Policy to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Culverts	Inspected and cleaned as required.	Cleaned as required. Inspected every 5 years for structural damage and blockages.	Policy to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Filter drains	Surface cleared of vegetation etc. As required. Filter media replaced as required.	Cleaned as required but at not more than 10 year intervals.	Policy to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Ironwork – new installations	Manhole and inspection chamber covers in carriageways shall be installed to a tolerance of +/-6mm to the surrounding level.	Manhole and inspection chamber covers in carriageways shall be installed to a tolerance of +/- 5mm to the surrounding level	LCC standard adopted from nrswa specification for the reinstatement of openings in highways 2nd ed. 2002

APPENDIX 2 : SUMMARY OF DEPARTURES FROM UK CPHMM AND INTERVENTION LEVELS			
Feature	**LCC Standard**	**CPHMM Standard**	**Comment**
Ironwork – investigatory levels	Investigatory levels for adjustment of ironwork are identified in the code of practice for highway safety inspections.	Adjust when found to be greater than 20mm lower than the surrounding carriageway	Previous LCC standard was 20mm. New standard relates response times to severity, but limits vary from 20mm to 100mm
Embankments and cuttings	No formal system of service inspections	Significant features should be subject to inspection regime determined following specialist geotechnical advice having regard to geological characteristics and risk of slippage or rockslides.	Policy to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Trees	Trees within the highway inspected every four years for potentially dangerous condition	Trees within and adjoining highway inspected annually for potentially dangerous conditions.	Policy to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Weed control	Weed control only where weeds are identified as causing damage to highway surfaces or a safety hazard or to comply with statutory duties in respect of noxious weeds.	Weed treatment should be undertaken according to traffic and pedestrian usage and to a standard that takes account of local concerns.	Policy to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Steel safety fences and guardrails - general condition	Service inspections undertaken on principal motorways, on other roads detailed inspections to be undertaken following receipt of any defect report from highway safety inspection.	Steel safety fences and guardrails should be inspected at intervals of 5 years in respect of mounting height, surface protective treatment and structural condition.	Policy to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Steel safety fences and guardrails – painting	Paint as required subject to availability of resources	Paint as required	Policies for safety barriers and fences to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Steel safety fences and guardrails – cleaning	Clean as required only where provided with chevron marking	Clean as required, except where also provided with chevron markings in which case clean as standards for traffic signs	
Tensioned safety barriers	None	Check tensioning bolts every two years	

APPENDIX 2 : SUMMARY OF DEPARTURES FROM UK CPHMM AND INTERVENTION LEVELS			
Feature	**LCC Standard**	**CPHMM Standard**	**Comment**
Traffic signs and bollards - general condition	Inspect every two years for general condition.	Inspected at least every two years in daylight and at night after cleaning for degradation of colour, retro-reflectivity, deteriorating fittings, legibility and average surface luminance.	Policies for traffic signs and bollards to be reviewed having regard to risk management strategy (see highway maintenance strategy and improvement plan).
Traffic signs and bollards - brackets and fixings	Tighten and adjust fixings as required.	Sign brackets, bolts, clips and fixings should be tightened and adjusted at two yearly service inspection.	
Traffic signs and bollards - painting	Paint as required.	Paint when required but not exceeding 10 year interval.	
Traffic signs and bollards - roundabout blockwork chevrons	Weedkill and clean as required to maintain effectiveness	Inspect annually and treat routinely for weedgrowth.	
Service inspections – road markings	The cphmm recommends that thermoplastic road markings should be inspected at least every two years in daylight for wear, spread, colour, skid resistance and retro-reflectivity (inspection interval of one year for paint markings), and once per year in darkness for reflective conspicuity. The council does not undertake formal recorded service inspections on all-purpose county roads contrary to the recommendations of the cphmm (see section 4.1). However, specific inspections are undertaken to determine work programmes for renewal of road markings and road studs and arrangements will be implemented to ensure these are undertaken and recorded in accordance with the principles of “risk management”.		