

*Implementation of the Code of Practice
for Well Managed Highway
Infrastructure*

Introduction

Liz Kirkham

- Managed Gloucestershire's bridges 2001 - 2014
- Member of COP Steering Group
- Chair of ADEPT National Bridges Group and UK Bridges Board
- Network Manager

Intentions behind review

- Identify gaps and omissions
- Remove “common” threads to volume 1 (overarching)
- Electronic – not hard copy, so can be edited, and also contains links to other standards and documents
- Emphasis on risk based decision making



UK ROADS LIAISON GROUP

WELL-MANAGED HIGHWAY INFRASTRUCTURE: A CODE OF PRACTICE



OCTOBER 2016



Gloucestershire
COUNTY COUNCIL

Implementation in Gloucestershire

Split recommendations into Themes

Linked to Self Assessment Questions where applicable

Allocated themes to members of Highway Management Team

Gap Analysis and action plans for each theme

Themes	Policy & Strategy Framework	Network & Hierarchy	Asset Management	Risk based approach	Resilience	Performance/ Benchmarking	Environment/ Sustainability
	Scott Tompkins	Liz Kirkham	Liz Kirkham	Martyn Midgley	Jenny Goodson	Mark Darlow-Joy	Kath Haworth
Self assessment Questions	Q1,6,7, 17, 18, 22		Q4, 5, 20,	Q8	Q9-11	Q2, 3, 12-16, 19, 21	
COP recommendations	1 - Use of Code	6 - Integrated network	10 – Asset Data	7 - Risk based approach	20 – Resilient Network	4 - Engage with stakeholders	32 - Carbon
	2 - AM Framework	9 – Network Inventory	11 – AM Systems	8 - Information to support RBA	21 – Climate Change Adaptation	5 - Consistency with neighbours	33 – Sustainability with character
	3 - AM Policy & Strategy	12 – Network Hierarchy	13 – Whole Life / designing for maintenance	14 – risk management	22 – Drainage Maintenance	26 – Performance Management Framework	34 – Heritage Assets
	15 – Competencies & Training	17 – Condition surveys	28 – Financial Plans	16 - Inspections	23 – Civil Emergencies & Severe Weather plans	27 – Performance Monitoring	35 – Environmental Impact, Nature Conservation and Biodiversity
		30 – Cross Asset Priorities	29 – Lifecycle Plans	18 – Management system and claims	24 – Communication (plans for emergencies)		36 – Minimising Clutter
			31 – Works Programming	19 – Defect repair	25 – Learning from Events		
Section headings in asset specific parts of COP	Legal Framework	Condition & Investigatory Levels	Asset Management Information	Inspection, Assessment & recording	Winter Service	Service Agreements	
Relevant to	Highways	Highways	Highways	Highways	Highways	Street lighting	
	Structures	Structures	Structures	Structures			
	Street Lighting	Street Lighting	Street Lighting	Street Lighting			
Section headings in asset specific parts of COP			Programming & Priorities				
Relevant to		Abnormal Loads	Highways	Road/Rail incursion	Critical Infrastructure		
			Structures				
			Street Lighting				



Policy & Strategy Framework					
Scott Tompkins					
	Code Recommendations	Fully Compliant?	Comment re compliance	Actions	Who should be involved in this?
1 - Use of Code	This Code, in conjunction with the UKRLG Highway Infrastructure Asset Management Guidance, should be used as the starting point against which to develop, review and formally approve highway infrastructure maintenance policy and to identify and formally approve the nature and extent of any variations.	80%	We now refer to the Code in the development of any new policy or review of existing. We need to amend the current highways policy wording to reflect adoption of the Code	Take paper to cabinet in September 2018 to reflect our adoption of the Code of Practice and the update of the TAMP etc	Scott and Liz to draft paper. All of HMT to review paper. Discuss with Lead Cabinet Member Review with legal, finance, HR and commercial.
2 - AM Framework	An Asset Management Framework should be developed and endorsed by senior decision makers. All activities outlined in the Framework should be documented. (HIAMG Recommendation 1)	80%	We have a framework, - policy/strategy/plan - there is some work required to review particular asset elements, such as street lighting, trees, etc	Individual asset managers to produce maintenance manuals documenting the individual activities for each asset	Individual asset managers Area and Local Highway Managers Asset teams (street lighting, traffic signals, structures etc)
3 - AM Policy & Strategy	An asset management policy and a strategy should be developed and published. These should align with the corporate vision and demonstrate the contribution asset management makes towards achieving this vision. (HIAMG Recommendation 3)	100%	The policy and strategy align with the corporate vision	Review policy and Strategy in summer 2018. Include changes in cabinet paper referenced above	Liz to produce draft policy and strategy HMT to review drafts liaise with LTP delivery team review with Lead Cabinet Member
15 - Competencies & Training	The appropriate competencies for all staff should be identified. Training should be provided where necessary for directly employed staff, and contractors should be required to provide evidence of the appropriate competencies of their staff.	100%	This is done through our PDR process.	annual PDR process, identify funding for training	HMT, all line managers HR training providers

Governance

- Political process to adopt new Code
 - Key decision (affecting all electoral divisions)
- Amendments to existing policy statement

Gloucestershire County Council will manage the local highway asset in line with the Highways Asset Management Framework and other guidance or policies such as the Code of Practice for Well Managed Highway Infrastructure

New Code Recommendations

RECOMMENDATION 6 – AN INTEGRATED NETWORK

The highway network should be considered as an integrated set of assets when developing highway infrastructure policies.

GCC Approach

- Through Asset Management Group

New Code Recommendations

RECOMMENDATION 7 – RISK BASED APPROACH

A risk based approach should be adopted for all aspects of highway infrastructure maintenance, including setting levels of service, inspections, responses, resilience, priorities and programmes.

GCC Approach - Risk

6 different recommendations

Asset/data driven

Policies and Levels of Service

Inspections, maintenance and claims management

GCC Approach

Changing from reliance on specific guidance to a risk-based approach is not a huge step for Gloucestershire

Higher Risk Appetite than many authorities and moved away from the “prescribed” Inspection regime to a risk based approach.

- Structures inspections 2003
- Safety inspections 2006

Asset by Asset approach

We are in the process of reviewing on an asset by asset approach:

- What do we know
- What are the risks
- How do we maintain

Consider for each asset

Why do we maintain it?

How important is it?

How many people use it?

If not maintained, is the risk significant

What data do we have?

What activities need to be carried out to manage the risks

What annual/cyclical works are carried out?

Is there targeted maintenance, or just reactive?

What inspections are carried out?

How is the work/programme prioritised?

How is this reported?

What comms do we carry out?

Evidence Check list

Generated through CIPFA/HAMP workshops

- Formally approved policy
- How service levels are based on local needs/priorities
- The approach is risk based, and risk managed
- Who takes the (risk based) decisions
- Skills and competencies
- Services are monitored and recorded

EVIDENCE CHECKLIST

Evidence to demonstrate compliance with the Code of Practice and also to demonstrate sound management where required, will range from strategic to operational information. It is likely to include the items listed below, all elements of the performance management framework and of the information contained in the data management system(s). In total a very large amount of information is likely to be required which will require careful management.

It is advised to consider the preparation, in conjunction with your legal and insurance teams, a standard disclosure pack for the initial response to 3rd party claims containing inter alia some evidence.

Evidence	Yes	No
A formally approved highway and/or asset management policy		
Executive report and minutes		
Including approval of any variations from the CoP.		
Report or documentation evidencing how the CoP and Risk Based Approach have been implemented by your authority		
Documented policy review process		
How service levels are based on local needs and priorities		
Links to corporate objectives		
Use of local economic and demographic information, etc;		
Development and approval of network hierarchy, service levels and priorities with supporting data and evidence		
Consultation with other authorities, partners and other departments.		
The approach is risk-based and service and network risks are managed		
Statement of approach to risk		
Corporate approach to risk (risk appetite), corporate and service risk registers, risk identification, risk evaluation (likelihood/impact), risk management (reduction/mitigation/elimination)		
Service delivery processes documented e.g. process maps recorded in HIAMP or Quality Management System or Operational Plans/Contract Documents		
Recognising what is not known		
Taking the risk-based decisions in the service delivery processes		
Specific roles with responsibility for taking those risk based decisions are identified		
The key decision criteria for each key decision are recorded		

New Code Recommendations

RECOMMENDATION 12 – NETWORK HIERARCHY

A network hierarchy, or a series of related hierarchies, should be defined which include all elements of the highway network, including carriageways, footways, cycle routes, structures, lighting and rights of way. The hierarchy should take into account current and expected use, resilience, and local economic and social factors such as industry, schools, hospitals and similar, as well as the desirability of continuity and of a consistent approach for walking and cycling.

Carriageway Hierarchy

- Developed by South West Asset Management Group
- Very similar to old COP hierarchy but with more “lower” hierarchy bands
- 11 bands in total
- Adopted by most authorities in South West

Safety Inspection Policy

- No changes to intervention levels
- Urgent/non-urgent rather than Category 1/Category 2

Feature	Description	Inspection Frequency
Roads	Hierarchy 2-4 Hierarchy 5-6 Hierarchy 7-11	1 month 3 month 12 month
Footways	Town Centre Secondary Link Local Access	1 month 3 month 6 month 12 month
Cycle	Cw/Fw Remote Cycle	As cw/fw 6 months 1 year

Implementation for Structures

Previous Code Recommendations

Located through the document, with 1 or 2 for each chapter.

- Employ suitably qualified and experienced personnel **Rec 15**
- Follow asset management principals **Rec 2 & 3**
- Have an inspection regime **Rec 16 & 17**
- Assess/review/maintain your structures **Rec 19 & 31**

Recommendation 7

Structures Risk Based Inspection Policy

General inspections are carried out every two years, in line with DMRB standards.

Gloucestershire has taken a risk based approach to determining the “level” and interval of any other inspections.

	Level of Principal Inspection
DMRB recommendation for Motorways/Trunk Roads	Full Principal inspection in line with BD63/07 (Inspection of Highway Structures)
Large, complex	Full Principal Inspection
Substandard	Engineer Inspection
Listed	Engineer Inspection
Subways	Engineer Inspection
Arches	Engineer Inspection
Large Arches	Full Principal Inspection
Slab	Engineer Inspection
Beam/girder	Principle/Engineer inspection, dependant on span
Box/pipes	Engineer Inspection

Structures Hierarchy

Hierarchies	score	description	nos in band
1	score 16 or more	Larger/complex bridges on strategic routes, particularly over live railway or navigable waterways, with long alternative routes	54
2	score 14 - 15	bridges on strategic routes with long alternative routes, or with larger/more complex construction	148
3	score 12 - 13	smaller bridges on strategic routes, or bridges on secondary distributors with long alternative routes	198
4	score 10 - 11	generally bridges on secondary distributors, or on lower hierarchy roads with long or no alternative access	147
5	score 9	generally bridges on link roads	172
6	score 7 - 8	generally bridges on local access roads,	152
7	score 6 or less	generally smaller bridges on minor roads, with alternative access (several perm weight restrictions)	24

New Code Recommendations

RECOMMENDATION 15 – COMPETENCIES & TRAINING

The appropriate competencies for all staff should be identified. Training should be provided where necessary for directly employed staff, and contractors should ensure that they provide evidence of the appropriate competencies for their staff.

Competence & Training



Gloucestershire have a Competence framework for all staff.

Asset Management Certification.

BICs Qualification encouraged (will be required in next contract)

New Code Recommendations

RECOMMENDATION 19 – DEFECT REPAIR

A risk based defect repair regime should be developed and implemented for all highway assets.

RECOMMENDATION 31 – WORKS PROGRAMMING

A prioritised forward works programme for a rolling period of 3 to 5 years should be developed and updated regularly.

Implementation for Structures

Part C – Structures

- Legal Framework
- Asset Management Information
- Asset Condition and Investigatory Levels
- Inspection, Assessment and Recording
- Programming and Priorities
- “should ...”

Gaps

- Basic inventory data for all retaining walls (Rec.9)
- Increased liaison with highway safety inspectors; (C.5.2.8)
- The need to undertake inspections after extreme events (C5.2.18)
- Improvements to GCC Scour assessments (C.4.3.4)
- Formalised RA's for substandard structures (C5.10.2)
- Review of structural review processes to ensure compliance (C.5.6.3)
- **Collated list of processes - Maintenance Manual**
- “Fully Functioning” Bridge Management System

To facilitate the Asset Management Aspects of a risk based approach it is essential to have

- Good data
- Easily accessibly and readily available
- The ability to prioritise and manage works



In GCC we have questioned whether our existing system of an non-bespoke structures system and excel spreadsheets is really adequate in 2018.

Procurement exercise underway to allow us to achieve

- Asset valuation
- Performance data
- Deterioration modelling & life cycle planning

Next Steps for GCC Structures

- Procurement of 'Best of Breed' BMS
- Review processes
- Create Structures Maintenance Manual
- Revision of Inspection policy based on hierarchy
- Identify method for identifying/locating highway retaining walls

Next steps for GCC Highways

- Complete Governance processes
- Complete review of risks for assets and processes

Monitoring/Evaluating Progress

- Item on Highways Management Team Agenda
- Quarterly progress meetings
- One of our reported KPIs
(number of recommendations we are compliant with)
- Barriers.....

Questions/Discussion

Thank you