

Transport Asset Management Plan

Code of Practice for Structures

Milestone Statement [see following pages for recommendations requirements and current position].

Milestone

- 1 Milestone One is intended broadly to include the adoption of processes necessary to provide highway structures that are safe to use, inspect and maintain.
- 2 Milestone Two encompasses Milestone One and is also intended broadly to include the adoption of additional processes necessary to provide highway structures that are fit for purpose and meet Government requirements. Milestone Two represents an interim step on the progression towards Milestone Three.
- 3 Milestone Three encompasses Milestones One and Two and additionally requires the adoption of processes necessary to deliver the agreed levels of Service (and Performance Targets) at minimum whole life costs, and to align with current and emerging Government policy objectives. This represents the full implementation of the Good Management Practice set out in the Code of Practice for Structures.

CODE OF PRACTICE FOR STRUCTURES Recommendations			Section 2 Management Context			Three Years	
No	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Target Completion / Priority	Comments
			Yes / No	Yes / No	Yes / No		
1	Employ suitably qualified, experienced and trained personnel (Section 2.2).	1	Yes	Yes			
2	Provide a programme of CPD and training for bridge managers, engineers and other staff to enable them to understand and implement the processes necessary to provide highway structures that are safe to use, inspect and maintain (section 2.2).	1	Yes	Yes			
3	Require agents and contractors to demonstrate their personnel are adequately qualified and experienced and are provided with appropriate CPD and training (Section 2.2).	1	Yes	Yes			
4	Maintain up-to-date documents on Government Transport Policy and Plans (Section 2.3) and Best Value, or equivalent, legislation (Section 2.4).	1	Yes	Yes			
5	Maintain information on legal and procedural requirements (Section 2.6).	1	Yes	Yes			
6	Maintain a Health & Safety policy and associated guidance notes tailored for the specific operations involved in the management of highway structures (Section 2.7).	1	Yes	Yes			
7	Maintain appropriate standards for maintenance (Section 2.8).	1	Yes	Yes			
8	Maintain a Technical Approval Procedure with an organisation or individual formally appointed as TAA (Section 2.8).	1	Yes	Yes			
9	Establish a process for compiling, storing and maintaining information on the management context of highway structures. Ensure the information is readily accessible and the process has a mechanism for keeping relevant staff informed of changes, amendments, updates, etc. (Section 2.1).	2	Yes	Yes			
10	Provide a programme of CPD and training for bridge managers, engineers and other staff to enable them to understand and implement the processes of Good Management Practice described in this Code (Section 2.2).	2	No	No	No		
11	Maintain up-to-date documents on Resource Accounting and Budgeting requirements (Section 2.5).	2	Yes	No	Yes	Two years	
12	Maintain guidance notes on the environmental (Section 2.9) and conservation (Section 2.11) requirements for management of highway structures.	2	Yes	No	Yes	Three Years	
13	Maintain procedures for stakeholder consultation and involvement (Section 2.12).	2	Yes	No	Yes	One Year	
14	Produce and maintain guidance notes, as appropriate, for dealing with other owners and third parties, e.g. developer promoted structures and structures over/adjacent to railways or canals (Section 2.13).	2	Yes	No	Yes	One Year	
15	Continue to provide an on-going programme of CPD (Section 2.2).	3	Yes	No	Yes	Two years	
16	Produce and maintain a guidance note on the ownership and maintenance of retaining walls and, as appropriate, a protocol for dealing with cellars and vaults and flooding at culverts (Section 2.6).	3	Yes	No	Yes	One Year	
17	Produce and maintain a guidance note on the sustainability requirements for the management of highway structures (Section 2.10).	3	No	No	No		

Transport Asset Management Plan

<u>CODE OF PRACTICE FOR STRUCTURES</u> <u>Recommendations</u>			Section 3 Asset Management Planning			Three Years	
No	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Target Completion / Priority	Comments
			Yes / No	Yes / No	Yes / No		
1	Nominate a highway structures representative to the asset management team (Section 3.3).	1	Yes	Yes			
2	Determine the content and scope of the Asset Management Regime that is appropriate for the authority's highway structures stock and align the Regime with the regimes for other transport assets (Section 3.5).	2	Yes	No	Yes	One Year	
3	Translate strategic goals and objectives and Levels of Service into performance targets for highway structures (Section 3.7).	2	Yes	No	Yes	One Year	
4	Identify the components of the Asset Management Regime that need to be developed for Basic and Advanced AM Planning (Section 3.7).	2	Yes	No	Yes	One Year	
5	Develop and implement components of the AM Regime needed to deliver the Basic AM Planning process for highway structures (Section 3.7).	2	Yes	No	Yes	One Year	
6	Develop and implement components of the AM Regime needed to deliver the Advanced AM Planning process for highway structures (Section 3.7).	3	Yes	No	Yes	Two years	

<p>Milestone One is intended broadly to include the adoption of processes necessary to provide highway structures that are safe to use, inspect and maintain.</p>	<p>Milestone Two encompasses Milestone One and is also intended broadly to include the adoption of additional processes necessary to provide highway structures that are fit for purpose and meet Government requirements. Milestone Two represents an interim step on the progression towards Milestone Three.</p>	<p>Milestone Three encompasses Milestones One and Two and additionally requires the adoption of processes necessary to deliver the agreed levels of Service (and Performance Targets) at minimum whole life costs, and to align with current and emerging Government policy objectives. This represents the full implementation of the Good Management Practice set out in this Code.</p>
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Transport Asset Management Plan

CODE OF PRACTICE FOR STRUCTURES Recommendations			Section 4 Financial Planning & Resource Accounting			Three Years Two years One Year	
No	Action	Milestone (see below)	Applicable to Halton	In place ?	To be implemented	Target Completion / Priority	Comments
			Yes / No	Yes / No	Yes / No		
1	Establish proper policies and procedures for the capitalisation of expenditure on structures maintenance, renewal and enhancement (Section 4.6).	1	Yes	Yes			
2	Prepare a Medium Term Financial Plan to support funding processes such as LTP, Spending Reviews, etc (Section 4.5).	2	Yes	Yes			
3	Prepare Annual Financial Plan to provide a basis for setting the Annual Budget (Section 4.5).	2	Yes	Yes			
4	Adopt the recommended procedures for determining commuted sums (Section 4.8).	2	Yes	No	Yes	Two years	
5	Prepare an integrated long term Transport Asset Management Plan, Medium Term Financial Plan and Annual Financial Plan as recommended. The plans should represent consequences of under-funding, by say 10%, 20% and 30% (Section 4.5).	3	Yes	No	Yes	Two years	
6	Establish a regime for the asset valuation of highway structures in accordance with the CSS Guidance Document (Section 4.7).	3	Yes	No	Yes	Two years	

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Milestone Three encompasses Milestones One and Two and additionally requires the adoption of processes necessary to deliver the agreed levels of Service (and Performance Targets) at minimum whole life costs, and to align with current and emerging Government policy objectives. This represents the full implementation of the Good Management Practice set out in this Code.

Code of Practice for Structures

Financial Planning Resource Accounting

CODE OF PRACTICE FOR STRUCTURES Recommendations				Section 5 Maintenance Planning and Management			Three Years	
No	Title	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Target Completion / Priority	Comments
				Yes / No	Yes / No	Yes / No		
1		Check that the inputs to the maintenance planning and management process are in place (Section 5.6).	1	Y	Y			
2		Implement a formal emergency response process (Section 5.7).	1	Y	Y			
3		Implement a formal process for identification of needs (Section 5.10).	1	Y	Y			
4		Develop and implement an annual work plan that covers re-active maintenance (Section 5.14).	1	Y	Y			
5		Identify how maintenance work should be classified (Section 5.5).	1	Y	Y			
6		Store the data required for maintenance planning and management in a suitable format (Section 5.8) and determine current performance (Section 5.9).	2	Y	N	Y	One Year	
7		Develop and implement a regular maintenance regime (Section 5.10).	2	Y	Y			
8		Develop and implement lifecycle plans for common forms of bridge construction (Section 5.10).	2	Y	N	Y	Two years	
9		Develop and implement Value Management (Section 5.11).	2	Y	N	Y	Two years	
10		Develop and implement an Annual Work Plan that covers regular, programmed and re-active maintenance (Section 5.14).	2	Y	N	Y	Two years	
11		Implement a feedback loop to monitor and review delivery of the Annual Work Plan (Section 5.16).	2	Y	N	Y	Two years	
12		Identify and implement improvements to the maintenance planning and management process (Section 5.17).	2	Y	N	Y	Two years	
13		Develop and implement lifecycle plans for all groups and sub-groups of highway structures (Section 5.10).	3	Y	N	Y	Two years	
14		Develop and implement Value Engineering (Section 5.12).	3	Y	N	Y	Three Years	
15		Develop and implement a Forward Work Plan for the next 1 to 3 years (Section 5.13) and monitor delivery (Section 5.16).	3	Y	N	Y	Two years	
16		Organise the different components of the maintenance planning and management process into a complete and integrated process (Section 5.4) and align with the long term asset management planning process (Section 3.7).	3	Y	N	Y	Three Years	

CODE OF PRACTICE FOR STRUCTURES Recommendations				Section 6 Inspection Testing and Monitoring			Three Years	
No	Title	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Two years	Comments
				Yes / No	Yes / No	Yes / No	One Year	
1		Implement a regime of Routine, Safety, Special and Acceptance Inspections covering all highway structures and any necessary testing and monitoring (Section 6.4).	1	Y	Y			
2		Implement a regime of General Inspections at an interval of not more than two years covering all highway structures (Section 6.4).	1	Y	Y			
3		Implement a process whereby the inspector has a clearly defined duty to inform the bridge manager, at the earliest possible opportunity, of any defects that may represent an immediate risk to public safety (Section 6.5).	1	Y	Y			
4		Implement a monitoring regime for all sub-standard structures (Section 6.7).	1	Y	Y			
5		Implement a regime of Principal Inspections at an interval of not more than six years covering all highway structures except those where a Principal Inspection would not add significantly to the defects picked up by a General Inspection (Section 6.4).	2	Y	N	Y	Two years	
6		Record the severity and extent of defects during General and Principal Inspections. It is recommended that the CSS Inspection Guidance, or a similar approach, is used (Section 6.5).	2	Y	Y			
7		Produce a full report for each Principal Inspection (Section 6.5).	2	Y	Y			
8		Carry out regular in-house inspection meetings to assess the consistency and competence of inspectors OR check that external contractors have suitably qualified/experienced inspectors who are also reviewed on a regular basis (Section 6.5).	2	Y	N	N		
9		Implement a regime of Principal Inspections covering all highway structures. Where appropriate, use risk assessment to determine the inspection interval (Section 6.4).	3	Y	N	N		
10		Produce an inspection, testing and monitoring manual that clearly defines the inspection requirements for the authority with H&S, Environmental and Conservation information recorded for each structure (Sections 2 and 6).	3	Y	N	Y	Two years	

CODE OF PRACTICE FOR STRUCTURES Recommendations				Section 7 Assessment of Structures			Three Years	
No	Title	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Target Completion / Priority	Comments
				Yes / No	Yes / No	Yes / No		
1		Complete the already defined national programme for 40 tonne assessment loading and take appropriate actions arising from the assessments including any interim measures.	1	Y	Y			All Highway Authority structures completed although several Network Rail bridges still await funding authorisation
2		Check that assessments results are properly recorded and kept up-to-date (Section 7.6).	1	Y	Y			
3		Implement a regime of structural reviews and reassessments as defined in the Code (Section 7.4).	2	Y	N	Y	Two years	
4		Put in place a prioritised programme of structural reviews to establish the need to assess, or update the assessment of, all structures which have not been designed or previously assessed to current standards (Section 7.4).	2	Y	N	Y	Two years	
5		Store the assessment results in a Bridge Management System (Section 7.6).	2	Y	N	Y	One Year	
6		Utilise assessment results in the planning and management of future maintenance programmes.	3	Y	N	Y	Two years	

CODE OF PRACTICE FOR STRUCTURES Recommendations				Section 8 Management of Abnormal Loads			Three Years Two years One Year	
No	Title	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Target Completion / Priority	Comments
				Yes / No	Yes / No	Yes / No		
1		Establish the roles of Abnormal Loads Officer, Structures Adviser, and Road Space Coordinator as specified in the Code (Section 8.2) .	1	Y	N	Y	One Year	
2		Establish procedures to check the suitability of a specific abnormal load to cross a particular structure broadly in accordance with the procedures given in Annex D of BD86 (Sections 8.5 and 8.6).	1	Y	Y			
3		Establish an Elementary System for the management of abnormal loads (Section 8.6).	1	Y	Y			
4		Establish how and to what extent the Authority will use the ESDAL system, when available, in particular the facility for Indicative Capacity Appraisals. Accordingly make the necessary data available to the ESDAL System (Section 8.6).	2	Y	N	Y	Two years	
5		Establish an Advanced System for the management of abnormal loads as appropriate to work alongside the ESDAL System (Section 8.6).	3	Y	N	N		
6		Ensure that the necessary data, including assessment results, are implemented and kept up-to-date within a Bridge Management System and used in the management of abnormal load movements (Section 8.5).	3	Y	N	Y	One Year	
7		Establish and monitor communication links between the Bridge Management System and the ESDAL System as necessary (Section 8.6).	3	Y	N	N		

CODE OF PRACTICE FOR STRUCTURES Recommendations				Section 9 Asset Information Management			Three Years	
No	Title	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Two years	Target Completion / Priority
				Yes / No	Yes / No	Yes / No	One Year	
1		Identify data and information needs (Sections 9.5 and 9.6) .	1	Y	Y			
2		Review current data and information (Section 9.5) .	1	Y	Y			
3		Undertake a gap analysis and schedule data capture (Section 9.5) .	1	Y	N	Y		One Year
4		Establish data capture, verification, transfer and storage processes and practices (Section 9.5) .	1	Y	N	Y		One Year
5		Capture essential data (Section 9.6) .	2	Y	N	Y		One Year
6		Establish Structure Files (Section 9.7) .	2	Y	Y			
7		Capture remaining data and information (Sections 9.5 and 9.6) .	2	Y	N	Y		Two years
8		Programme cyclic data and information needs (Section 9.5) .	2	Y	N	Y		Two years
9		Implement an on-going data and information review process (Section 9.5) .	3	Y	N	Y		Two years

CODE OF PRACTICE FOR STRUCTURES Recommendations				Section 10 Framework for Bridge Management System			Three Years		
No	Title	Action	Milestone	Applicable to Halton	In place ?	To be implemented	Two years	Target Completion / Priority	Comments
				Yes / No	Yes / No	Yes / No	One Year		
1		The BMS should have a database with a listing of all highway structures with basic inventory details recorded for each asset. It would be preferable to store inspection results on the BMS (Section 10.8).	1	Y	N	Y		One Year	
2		The BMS should incorporate the following functional modules: User Interface (Section 10.5), Report Generator (Section 10.7), Asset Database (Section 10.8), Works Management (Section 10.9), Abnormal Load Management (Section 10.10), Performance Measures (Section 10.13), Decision Support for short term planning and Basic AM planning (Section 10.6).	2	Y	N	Y		One Year	
3		In addition to the above, the BMS should incorporate the following functional modules: Prediction Models (Section 10.11), Whole Life Costing (Section 10.12), Asset Valuation (Section 10.14), Decision Support for Advanced AM planning (Section 10.6).	3	Y	N	Y		One Year	