
**VOLUME 3 HIGHWAY STRUCTURES:
INSPECTION AND
MAINTENANCE**

SECTION 2 MAINTENANCE

PART 4

BD 89/03

**THE CONSERVATION OF HIGHWAY
STRUCTURES**

SUMMARY

This Standard covers procedures, conservation strategies and applications in the management of Scheduled and Listed highway bridges and other structures, and bridges having historic or conservation merit.

INSTRUCTIONS FOR USE

This is a new Standard to be incorporated in the Manual.

1. Remove existing Contents pages for Volume 3.
2. Insert new Contents pages for Volume 3 dated November 2003.
3. Insert BD 89/03 into Volume 3, Section 2, Part 4.
4. Please archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.



THE HIGHWAYS AGENCY



SCOTTISH EXECUTIVE



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

**WELSH ASSEMBLY GOVERNMENT
LLYWODRAETH CYNULLIAD CYMRU**



**THE DEPARTMENT FOR REGIONAL DEVELOPMENT
NORTHERN IRELAND**

The Conservation of Highway Structures

Summary: This Standard covers procedures, conservation strategies and applications in the management of Scheduled and Listed highway bridges and other structures, and bridges having historic or conservation merit.

REGISTRATION OF AMENDMENTS

Amend No	Page No	Signature & Date of incorporation of amendments	Amend No	Page No	Signature & Date of incorporation of amendments

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1. INTRODUCTION

General

1.1 This Standard covers procedures, conservation strategies and applications in the management of Scheduled and Listed highway structures, and structures that are neither Scheduled nor Listed but having conservation merit as agreed by the relevant Overseeing Organisation.

1.2 Requirements for the conservation of historic structures are specified in a number of disparate documents and it has been identified that there is a need to bring them together in a bridge-orientated publication. The Highways Agency therefore sponsored the publication of 'Conservation of Bridges' (ref 1) which provides background examples and advice on conservation methods and techniques for bridges. This Standard complements the publication by dealing with procedural requirements of conservation.

1.3 As procedures for conservation differ across the UK, this Standard has a common core supplemented by annexes dealing with the differing legislation and requirements.

1.4 Highway structures that are neither Scheduled nor Listed may also merit conservation. These may include the following:

- (i) Structures having historic, cultural, architectural etc merit as determined by the Overseeing Organisation.
- (ii) Structures within Conservation Areas, National Parks, World Heritage Sites, sites in the Inventory of Gardens of Designed Landscapes etc, where the Overseeing Organisation deems that conservation measures need to be applied.

1.5 Where maintenance work is required for highway structures covered by this Standard it is always preferable to conserve and retain wherever practicable. Replacement should only be considered as a last resort. Conservation is economic in the use of natural resources and is a particularly sustainable form of construction. Moreover, there is a general growth of public interest in historic bridges and an aversion to their modernization or replacement.

1.6 Conservation need not necessarily add to the costs of managing historic structures.

Scope

1.7 This Standard provides guidance on the procedures required for conservation of the different types of highway structures managed by Overseeing Organisations and their Agents. The Standard applies to Scheduled and Listed structures, and structures deemed by the Overseeing Organisation to be of conservation merit. It covers procedures, conservation strategies, applications, and management.

1.8 This Standard may be read in conjunction with 'Conservation of Bridges' (ref 1) on methods of conservation and relevant chapters should be consulted where appropriate.

Definitions

1.9 Highway structures. Bridges and other structure types owned by the Overseeing Organisation as defined in BD 62 (DMRB 3.2.1). References in this Standard to bridges apply equally to other highway structures.

1.10 Conservation. Conservation is an approach where there is something of historic or aesthetic merit to be kept, but there can be change, as long as new insertions are in keeping or enhance that which is existing. It is a living and developing situation. For instance, saddling the arch of an old stone bridge or strengthening an existing parapet would be conservation, as would adding contemporary lighting in sympathy with the original design. Re-using an old highway bridge for pedestrians or cyclists where it was inadequate for motor vehicles would be a good example of conservation. Within an overall conservation exercise on a bridge there might well be restoration or preservation of certain elements. The principles of conservation are outlined in 3.1.

1.11 Conservation merit. A description applied to trunk road bridges deemed by the Overseeing Organisation to require the application of conservation strategies as outlined in Section 3, during the management and maintenance of the structure. To ascertain whether a structure is of conservation merit, advice can, if appropriate, be obtained from the Institution of Civil Engineers Panel for Historic Engineering Works (PHEW).

1.12 A Scheduled Ancient Monument in England, Scotland and Wales. A monument included under the Ancient Monuments and Archaeological Areas Act 1979, ref 2, in the Schedule of Ancient Monuments produced by the Secretary of State for Culture, Media and Sport in England, by the Scottish Ministers acting through Historic Scotland in Scotland or in Wales by the Welsh Assembly Government.

1.13 A Scheduled Ancient Monument in Northern Ireland. A Monument included under the Historic Monuments and Archaeological (NI) Order 1995, ref 3.

1.14 A Listed Building in England and Wales. A building included under the Planning (Listed Buildings and Conservation Areas) Act 1990, ref 4. Listed Buildings are classified in grades of relative importance:

Grade I. Buildings of exceptional importance.

Grade II*. Buildings of particular importance and more than special interest.

Grade II. Buildings of special interest and warranting preservation.

1.15 A listed building in Scotland. A building included under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, ref 5. Listed Buildings are classified in categories of relative importance:

Category A Buildings of national importance.

Category B Buildings of regional importance or more than local importance.

Category C(S) Buildings of local importance.

1.16 A Listed Building in Northern Ireland. A Building included under the Planning Order (NI) 1991, ref 6.

Mandatory Requirements

1.17 Sections within this document which form mandatory requirements of the Overseeing Organisation are highlighted by being contained within boxes. The remainder of the document contains advice which is commended as best practice to designers for their consideration.

Implementation

1.18 This Standard shall be used forthwith in the preparation and execution of works to highway structures as covered by the Scope, including works currently under preparation.

2. PROCEDURES

2.1 Although the processes relating to structures requiring conservation are similar throughout the UK, the terminology and the various bodies involved in the consultation and consent process differ between Overseeing Organisations. The specific procedures are therefore set out in the respective Annexes.

3. CONSERVATION STRATEGIES

Principles

- 3.1 The principles of conservation are:
- i. Bridges are best kept in use and maintained in their original form and performing the same function and structural action.
 - ii. There should be minimal changes to the structure and its appearance.
 - iii. Modifications should involve no loss in character, minimal loss of historic fabric, and minimal adverse effect on the setting.
 - iv. Modifications should preferably be reversible.
 - v. There should be minimal introduction of new material, whether newly produced, modern, or additional to the original fabric.
 - vi. All work should be undertaken using appropriate materials and methods of application.
 - vii. When conservation is carried out, records should be kept of the work and any archaeological artefacts that may be uncovered. There may be a requirement to carry out an archaeological assessment or investigation prior to commencing the work.
 - viii. If deemed appropriate by the Overseeing Organisation, a long term conservation plan may be drawn up for bridges of conservation merit, defining how they should be managed in the longer term with reference to their significance.

These general principles should be followed as closely as possible. General advice on the conservation of buildings and their landscape is given by English Heritage, ref 7.

Furniture

3.2 The historic or aesthetic value of existing bridge furniture including parapets, lighting equipment, signs, etc should be addressed in applications for planning consent since these can be important features that should be retained whenever possible.

3.3 Modern fixtures not in keeping with the age and type of structure should, at an appropriate time, be removed and more appropriate fixtures reinstated. The details of the new fixtures should be carefully considered and included in applications for planning consent.

Materials

3.4 Materials used in the conservation of bridges may require specialist suppliers and contractors having knowledge of their composition, properties and correct method of use. In such cases those employed should have appropriate experience and skills. Reference can be made to the Conservation Accreditation Register for Engineers (CARE) formed jointly by the Institution of Civil Engineers and the Institution of Structural Engineers.

3.5 Traditional materials such as masonry (brick, stone), lime mortar, timber, cast iron, wrought iron, can usually be obtained from specialist suppliers. They should be used in a traditional way, for example mortar joints should be pointed in the original style and appearance.

3.6 Traditional materials such as lead-based paint that are no longer permitted by health and safety regulations can, if justified by the circumstances, be permitted for use on Scheduled Monuments and Grade I and II* Listed Buildings in England and Wales and Category A and B Listed Buildings in Scotland. The relevant procedures should be confirmed with the Overseeing Organisation.

3.7 In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate. In these instances they should be discussed and agreed with the Overseeing Organisation and submitted for Scheduled Monument Consent (SMC) or Listed Building Consent (LBC) as required.

3.8 In most cases the appropriate conservation techniques will be agreed as part of the application for consent.

3.9 On occasions it may be necessary to carry out chemical and/or petrographic analyses as well as the more common mechanical tests on materials in the original structure in order to ensure that replacements

are like-for-like. When materials are replaced, their positions in the structure and details of their source should be recorded as part of the archaeological work (see Section 5).

3.10 Departures from Standards relating to the specification and use of materials for conservation work shall be approved by the Technical Approval Authority (TAA) of the Overseeing Organisation.

4. APPLICATION OF PRINCIPLES

4.1 When considering strengthening, upgrading, widening or change of use to bridges that are Scheduled, Listed or have conservation merit, conservation principles should be followed.

Strengthening

4.2 Strengthening may be required when a bridge or component of a bridge is:

- i. Weakened by general deterioration, most commonly corrosion of iron and steelwork, frost damage to masonry and concrete, rotting of timber and erosion of sub-structures.
- ii. Damaged by a collision, for example by a high-sided vehicle passing beneath and striking the underside or by a vehicle passing across the bridge and striking the parapet.
- iii. Required to have a higher load-carrying capacity or a parapet upgrade etc. due to change of use or Standards.

4.3 Assessment of bridges under the scope of this Standard shall be carried out in the normal way in accordance with the scheme requirements, management strategy and operational requirements of the route using current assessment Standards and taking particular care to ensure that all weaknesses and strengths are identified. To ensure that historic bridges are not strengthened unnecessarily, the full range of available measures shall be considered, including state-of-the-art analysis and more sophisticated structural models, departures from standard, revised loadings and lane layouts and internal strengthening (but see 4.6). This process is normally effected through the Overseeing Organisation's Technical Approval (TA) process.

4.4 If the bridge or component is found to be in a dangerous state and requiring immediate attention, it will be necessary to take action without delay. The work shall be short-term and temporary, for example in accordance with BA79 (DMRB 3.4.18), and planned to be eventually removed. Work of this nature shall be designed to

cause least permanent damage to the fabric of the structure. In England and Wales the Ancient Monuments (Class Consent) Order 1994 and in Scotland the Ancient Monuments (Class Consent) Order (Scotland) 1996 grants SMC to carry out works which are urgently necessary in the interests of safety and health, provided that:

- i. the works are limited to the minimum measures immediately necessary; and
- ii. notice in writing, justifying in detail the need for the works, is given to the Secretary of State as soon as reasonably practical.

Urgent work on Listed Buildings can be carried out provided that:

- i. works are urgently needed in the interests of health and safety or preservation of the structure;
- ii. it is not practical to secure health and safety or the preservation of the structure by works of repair or works affording temporary shelter or support;
- iii. the works carried out are limited to the minimum immediately necessary; and
- iv. notice in writing, justifying in detail the carrying out of the works, is given to the local planning authority as soon as reasonably practical.

4.5 Where a bridge has been found to require strengthening as a result of a structural assessment, the choice of the strengthening method will depend on the nature of the problem (see 4.2), construction material, design of the original structure, and requirements of conservation. Strengthening schemes shall be subject to Technical Approval through the Overseeing Organisation's Technical Approval Authority (TAA).

4.6 When designing a strengthening scheme, historic context, originality of the fabric, uniqueness of the structure, and aesthetics should be taken into account and care taken to avoid changes in external appearance,

particularly parapets and edge beams where the aesthetic significance of such items is paramount. If it is necessary to add new structural elements, they should be incorporated into the structure in a sensitive manner. Although aesthetics are important, the unseen fabric of the bridge also has value and must be given consideration. Early informal consultation with the relevant heritage or local planning authority is recommended.

Widening

4.7 Where additional traffic lanes or additional space for pedestrians is to be provided, full justification for the proposal will be required, including an assessment of less intrusive options such as traffic management.

4.8 The common techniques of widening are:

- i. Widen the existing bridge.
- ii. Construct a new footbridge alongside.
- iii. Construct a new road bridge alongside.
- iv. Add a cantilevered deck onto the original bridge.

4.9 Selection of the method of providing additional capacity should take due account of the setting, environment and historic context of the bridge. Structure widening schemes shall be subject to technical approval through the Overseeing Organisation's TAA.

4.10 When designing widening works, aesthetics are particularly important and care must be taken with the final appearance of the side elevation, parapet, and visible deck construction. The appearance and balance of the approaches at road level also require sensitive treatment.

4.11 Widening of the original bridge should be in proportion with the span length(s) and care should be taken to ensure that it is not detrimental to the character of the original bridge.

4.12 An adjacent structure should be designed to leave an uncluttered and clear view of the original structure.

Change of Use

4.13 When change of use involves higher loading it will be necessary to undertake a structural assessment to investigate whether the bridge has adequate strength

and serviceability, taking into account the particular materials and structural actions of the bridge, and using the appropriate level of analysis, see 4.3.

4.14 When the original bridge is to be used to serve a lower volume of traffic, or non-vehicular traffic, or becomes redundant such as when a by-pass is constructed or a new bridge is built nearby, it should continue to receive maintenance because the processes of deterioration will proceed unabated. Some sources of deterioration may change, such as reduced salt spray, or increased vegetative growth, and this should be taken into account in the maintenance planning. Where ownership is transferred from the Overseeing Organisation, the prospective owner should be advised of the heritage status of the structure, and the need to continue any conservation strategy that may be in place.

4.15 It will be necessary to ensure that a redundant bridge continues to be maintained in a safe condition, posing no risk to passers-by. This can be aided by designing alternative uses for the redundant bridge, for example, to carry a bridleway or cycle track, or serve as part of a lay-by.

4.16 When utilities are present in a redundant structure it will usually be necessary to ensure that they continue to be adequately housed and supported and do not become a threat to the bridge.

5. MANAGEMENT

5.1 When undertaking work on Scheduled and Listed bridges, archaeological recording before and during the work will normally be required. Results should be entered into the Maintenance Manual for the structure (see BD 62 DMRB 3.2.1), and referenced in the Overseeing Organisation's environmental database, see Annexes.

Planning

5.2 Management planning is required in accordance with normal practice and taking due account of the principles of conservation.

5.3 For many historic bridges, it cannot be assumed that drawings or even recent surveys are necessarily correct. Important details, such as earlier strengthening measures or the presence of redundant structural elements, may be hidden within the structure and not recorded.

5.4 When planning maintenance measures, requirements of conservation should normally take precedence over maintenance strategies based on whole life costs.

5.5 Before carrying out maintenance work on a structure, it should be determined whether there are any protected species of wildlife living in or near to the structure. The owner or authority responsible for the obstacle being crossed may be able to provide this information. For structures crossing watercourses the relevant river authority and environmental protection organisation shall be consulted. Where protected species exist, work is subject to license by DEFRA in England and Wales and by SEERAD in Scotland.

5.6 When carrying out demolition work on lesser structures and buildings it is prudent to store redundant materials that may be suitable for future maintenance of historic bridges, for example masonry, ironwork, timber etc.

Maintenance

5.7 Maintenance of historic bridges should ensure their safety and serviceability and be undertaken in accordance with the principles of conservation.

5.8 Anticipation and undertaking of maintenance works to prevent later problems can be particularly effective for historic bridges. This includes deck waterproofing, water management and river training. Routine maintenance activities (see Trunk Road Maintenance Manual volume 2) for such structures should be reviewed to ensure that the most appropriate regime for the structure is in place.

5.9 When carrying out routine or other minor preventative maintenance on Scheduled or Listed bridges, it may be necessary to consult the heritage authority as any work involving materials or appearance, for example maintenance painting of ironwork and re-pointing of masonry joints, will normally require their approval.

5.10 A stringent no-tree zone should be established and maintained around the structure to avoid consequential damage. Where existing vegetation provides an established sight or noise screen, or where existing trees are the subject of preservation orders, due account shall be taken of this.

6. APPLICATIONS FOR SCHEDULED MONUMENTS AND LISTED BUILDINGS

6.1 The relevant statutory processes for applications for SMC and LBC shall be as set out in the Annexes for the respective Overseeing Organisations.

7. PRINCIPAL LEGISLATION AND GUIDANCE

7.1 The principal legislation and guidance relevant to conservation of Scheduled and Listed Structures in the respective parts of the UK are as set out in the Annexes.

8. REFERENCES

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23. PPS 6 Planning, Archaeology and the Built Heritage. The Stationery Office Ltd
Design Manual for Roads and Bridges. The Stationery Office Ltd
BD2. Technical Approval of Highway Structures (DMRB 1.1.1)
BD62. As Built, Operational and Maintenance Records for Highway Structures (DMRB 3.2.1)
BA79. The Management of Sub-standard Highway Bridges (DMRB 3.4.18)
HA91. Environmental Database System (DMRB 10.0.6)

9. ENQUIRIES

All technical enquiries or comments on this Standard should be sent in writing as appropriate to:

Chief Highway Engineer
The Highways Agency
Room B153A
Romney House
43 Marsham Street
London SW1P 3HW

G CLARKE
Chief Highway Engineer

Chief Road Engineer
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Victoria Quay
Edinburgh
EH6 6QQ

J HOWISON
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Welsh Assembly Government
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Director of Engineering
Department for Regional Development
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Clarence Court
10-18 Adelaide Street
Belfast BT2 8GB

G W ALLISTER
Director of Engineering

ANNEX A SPECIFIC REQUIREMENTS: ENGLAND

A1 DEFINITIONS

Structures of Conservation Merit

A1.1 In England, two additional categories of highway structure that are neither Scheduled nor Listed, but may nevertheless be deemed by the Overseeing Organisation to require the application of conservation strategies, as outlined in Section 3, have been introduced into this Standard:

- i. Historic Conservation Merit. A description applied to trunk road structures built before 1939, which, although neither Scheduled nor Listed, may be recognized as having historic, cultural and rarity values, or in a designated conservation area and thus deemed by the Overseeing Organisation to require the application of conservation principles.
- ii. Outstanding Conservation Merit. A description applied to trunk road structures in England built since 1939 and neither Scheduled nor Listed but having design, innovational, structural or architectural values deemed by the Overseeing Organisation to require the application of conservation principles.

A2 PROCEDURES

A2.1 Procedures below shall be followed for all bridges coming under the scope of this Standard, as applying to England through the definitions in 1.12 and 1.14, and A.1 above.

A2.2 For Scheduled and Listed bridges in England, appropriate liaison with the local planning authority, and if appropriate English Heritage, shall be maintained throughout the planning and execution of the work, and approvals obtained where required. The status and age of the structures, whether Scheduled or Listed, may be checked initially with the HA's Structures Management Information System (SMIS) and Table A1 in Conservation of Bridges (ref 1) which gives the heritage listing status of Highways Agency bridges constructed before 1915 and in

their ownership at the time of publication, but Scheduled or Listed status should be confirmed with English Heritage.

A2.3 Work to a Scheduled bridge requires Scheduled Monument Consent (SMC) from the Secretary of State for Culture, Media and Sport, who will consult English Heritage on any such application. It is a criminal offence to carry out works without such consent.

A2.4 Any works for the demolition of a listed bridge or for its alteration or extension in any manner which would affect its character as a building of special architectural or historic interest requires LBC. Applications for LBC should be made to the local planning authority, who will consult English Heritage in relation to any works to a Grade I or II* building and on any proposals for total or partial demolition of a Grade II building. It is a criminal offence to carry out works to a listed bridge without LBC. In addition, the local planning authority can require the bridge to be restored to its former state through the issue of an enforcement notice. It is a further offence to fail to comply with an enforcement notice.

A2.5 Conservation work on bridges that are neither Scheduled nor Listed but deemed by the Overseeing Organisation to merit conservation does not require statutory consent.

A2.6 Structural modifications to all categories of bridge require approval via the Technical Approval Authority.

A2.7 When new construction is planned at or in the vicinity of a Scheduled or Listed structure, such as a new bridge alongside the original, it may be necessary to consult the Commission for Architecture and the Built Environment (CABE). Advice on this shall be sought from the Overseeing Organisation.

A3 MANAGEMENT

A3.1 Results of archaeological recording before and during the work shall be referenced in the Environmental Database System HA91 (DMRB 10.0.6) using Environmental Element Code P3.1 'Cultural Heritage'

A3.2 The principles of such recordings are given by the former RCHME, ref 8 and management of archaeological projects by English Heritage, ref 9.

Planning

A3.3 The sequence of activities and decision making is outlined in the management flow chart, Figure A1.

Maintenance

A3.4 Routine maintenance activities (see Trunk Road Maintenance Manual volume 2) for such structures should be reviewed to ensure that the most appropriate regime for the structure is in place.

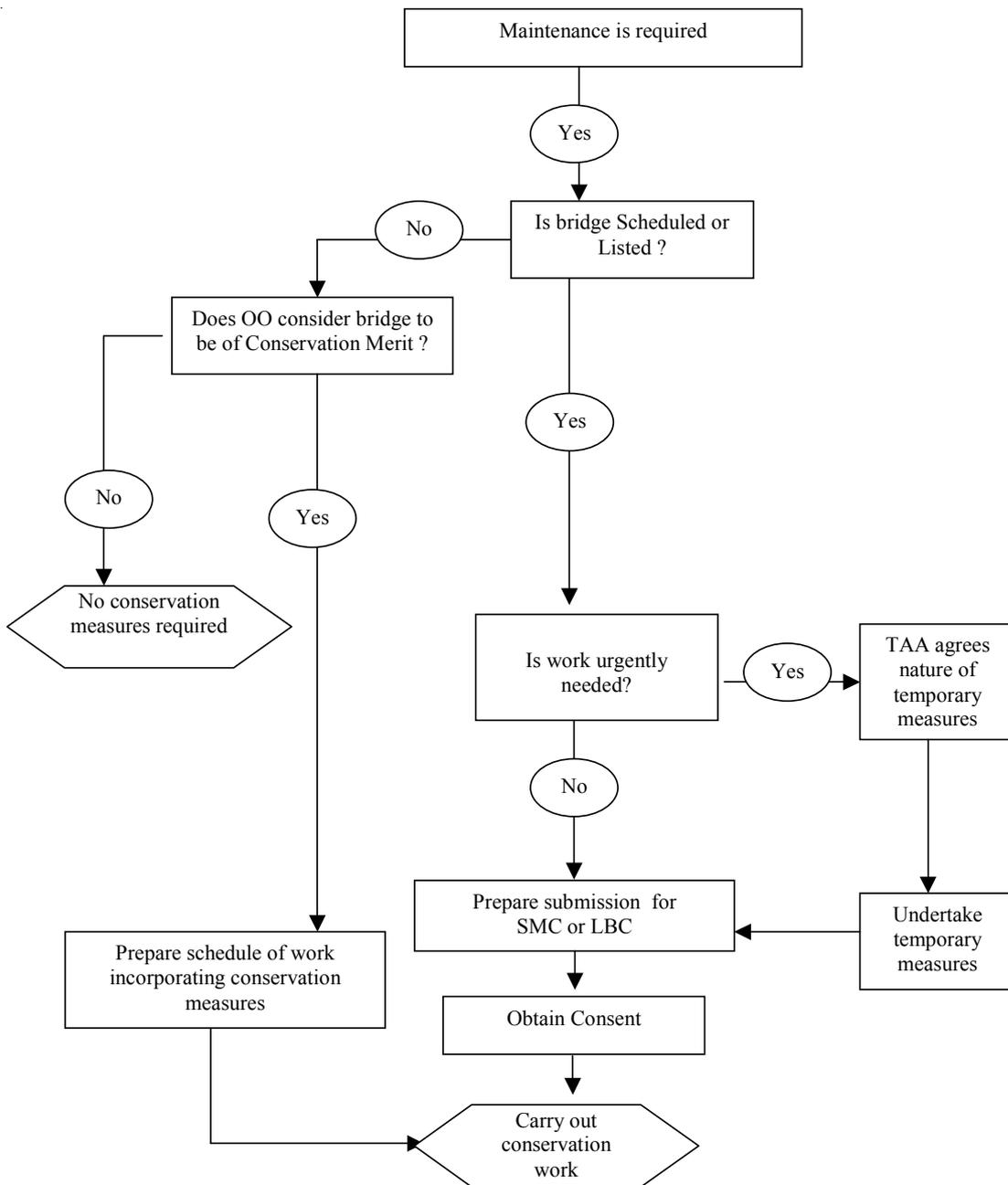


Figure A1

A4 APPLICATIONS FOR SCHEDULED MONUMENT AND LISTED BUILDINGS CONSENT

A4.1 Applications for Scheduled Monument Consent shall be made on Form AM 112 supplied by the Department for Culture, Media and Sport.

A4.2 Applications for Listed Building Consent shall be made to the local planning authority. It is required that English Heritage be consulted on certain applications.

A4.3 Details required for applications to carry out work on Scheduled and Listed Structures vary according to the case in question. In general the following information should normally be provided:

- i. Applications should give a description of the bridge, its history and historic importance, and the setting, for example whether it is in a Conservation Area or a Site of Special Scientific Interest. Useful information about historic bridges that are neither Scheduled nor Listed may be found in publications by Jervoise, ref 10, the Public Works Roads and Transport Congress, ref 11 and the Civil Engineering Heritage Series, ref 12.
- ii. The proposed schedule of conservation work emphasizing conservation issues, archaeological recording and investigations (if required) and how the work will be planned to avoid undue disturbance.
- iii. Other issues, such as interaction with utilities, traffic management, consultation with special interest groups and presentation of planned work to the public etc will help to ease progress but will not be critical to the granting of SMC or LBC except where there are interactions with the schedule of conservation work.

A5 PRINCIPAL LEGISLATION AND GUIDANCE

A5.1 Principal Acts and guidance documents relevant to conservation of Scheduled and Listed bridges in England are given below.

- i. Ancient Monuments and Archaeological Areas Act 1979, (ref 2). This Act applies to works to scheduled ancient monuments. If a bridge is scheduled, then before works may be carried out

to the bridge, it is most likely that scheduled monument consent (SMC) will be required. Applications for SMC are to be made to the Secretary of State for the Department for Culture, Media and Sport but English Heritage are always consulted by DCMS on applications. If a bridge is both Listed and Scheduled, only Scheduled Monument Consent will be required, not Listed Building Consent.

- ii. Planning (Listed Buildings and Conservation Areas) Act 1990, (ref 4). This Act makes provisions for works to Listed buildings and for works for the complete demolition of unlisted buildings within Conservation Areas. It provides for the need for Listed Building Consent before a Listed building can be demolished, and also before it can be altered or extended in a manner which would affect its character as a building of special architectural or historic interest. In addition, Conservation Area consent is required to demolish an unlisted building in a Conservation Area but not for its alteration. An application for either of these consents would need to be made to the local planning authority that would have the necessary forms. English Heritage is required to be consulted by the local planning authority on certain applications.
- iii. Town and Country Planning Act 1990, (ref 13). If the proposed works to the bridge amount to development, then planning permission will also be required (in addition to any need for Listed Building Consent, Conservation Area Consent or Scheduled Monument Consent). This 1990 Act provides for the need for planning permission. Applications should be made to the local planning authority who will have the necessary forms.
- iv. PPG 15. Planning and the Historic Environment, (ref 14). This is a non-statutory guidance note giving national policy on planning and conservation. It includes policy on Listed Buildings, Conservation Areas, transport and traffic management.
- v. PPG 16. Archaeology and Planning, (ref 15). This is a non-statutory guidance note giving national policy on planning and the conservation of archaeology (including Scheduled Monuments). It is used by local authorities to ensure that archaeological and historic remains receive due consideration in the process of planning control.

ANNEX B SPECIFIC REQUIREMENTS: SCOTLAND

B1 PROCEDURES

B1.1 Procedures below shall be followed for all bridges coming under the scope of this Standard, as applying to Scotland through the definitions in section 1.12 and 1.15.

B1.2 Appropriate liaison with Historic Scotland (HS) and/or the local planning authority (LPA) shall be maintained throughout the planning and execution of the work, and approvals obtained wherever required. The status of structures, whether Scheduled or Listed, may be checked initially with the Trunk Road Bridges Database (TRBDB), but should always be confirmed with the local authority and/or Historic Scotland.

B1.3 Work on Scheduled bridges requires to be granted consent by Historic Scotland (HS).

B1.4 Work on all categories of Listed bridge requires to be granted consent by the local planning authority, which usually consults HS, or by HS in cases where the applicant is the local authority.

B1.5 Structural modifications to all categories of bridge require approval via the Technical Approval Authority.

B1.6 When new construction is planned at, or in the vicinity of, a Scheduled or Listed structure, such as a new bridge alongside the original, it may also be necessary to consult the Royal Fine Art Commission for Scotland. Advice on this should be sought from the Overseeing Organisation and local planning authority.

B2 MANAGEMENT

B2.1 When undertaking work on Scheduled (and less frequently, Listed) bridges, archaeological recording, before and during the work, will normally be required. Results shall be entered into the structure file and any relevant database including the National Monuments Record and Local Sites and Monuments Records (SMRs).

B3 APPLICATIONS FOR SCHEDULED MONUMENT AND LISTED BUILDINGS CONSENT

B3.1 The details required for applications to carry out work on Scheduled and Listed bridges vary according to the case in question. In general, the following information should normally be provided:

- i. Applications for Scheduled Monument Consent (SMC) are made through Historic Scotland, and for Listed Building Consent (LBC) through the local planning authority, each on the appropriate forms. Where a bridge straddles a local authority boundary, LBC will be required from each.
- ii. Background giving a brief description of the bridge, its history and historic importance, and the setting, for example whether it is in a Site of Special Scientific Interest or a Conservation Area. Refer to the Conservation Plan or Conservation Area Character Appraisal.
- iii. The proposed construction work emphasizing conservation issues, archaeological recording and investigations (if required) and how the work will be planned to avoid undue disturbance.
- iv. Consideration of issues such as interaction with utilities, traffic management, consultation with special interest groups and presentation of planned work to the public etc will help to ease progress but will not be critical to the granting of LBC or SMC.

B4 PRINCIPAL LEGISLATION AND GUIDANCE

B4.1 The principal Acts and Guidance documents relevant to conservation of Scheduled and Listed bridges in Scotland are given below:

- i. Ancient Monuments and Archaeological Areas Act 1979, (ref 2). This Act applies to works to Scheduled Ancient Monuments. If a bridge is Scheduled, then before works (of repair as well as alteration) may be carried out to the bridge it is most likely that Scheduled Monument Consent (SMC) will be required. Applications for SMC

are to be made to the Scottish Ministers acting through Historic Scotland. If a bridge is both Listed and Scheduled, only SMC will be required, not Listed Building Consent.

- ii. Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, (ref 5). This Act makes provisions for works to Listed Buildings and to unlisted buildings within Conservation Areas. It provides for the need for LBC before a Listed Building can be demolished, and also before it can be altered or extended in a manner which would affect its character as a building of special architectural or historic interest. In addition, Conservation Area Consent is required to demolish an unlisted building in a Conservation Area but not for its alteration. An application for either of these consents would need to be made to the local planning authority that would have the necessary forms. Historic Scotland is required to be consulted by the local planning authority on all applications except alteration of Category C(S) Listed Buildings that are not owned by a local authority. The Scottish Ministers, via Historic Scotland, determine all applications that are made on behalf of a local authority (and therefore the majority of road bridges fall into this category).
- iii. Town and Country Planning (Scotland) Act 1997, (ref 16). If the proposed works to the bridge amount to development, then planning permission will also be required (in addition to any need for SMC, LBC or Conservation Area Consent). Applications should be made to the local planning authority who will have the necessary forms.
- iv. Memorandum of Guidance on Listed Buildings and Conservation Areas 1998, (ref 17). This is a non-statutory guidance note giving national policy on Listed Buildings and conservation areas. Bridges are given attention at paragraph 9.1.0 of Appendix 1.
- v. NPPG 5 Archaeology and Planning by the Scottish Executive, (ref 18). This is a non-statutory guidance note giving national policy on planning and the conservation of archaeology (including scheduled monuments). It is used by local authorities to ensure that archaeological and historic remains receive due consideration in the process of planning control.

ANNEX C SPECIFIC REQUIREMENTS: WALES

C1 PROCEDURES

C1.1 Procedures outlined below shall be followed for all works coming under the scope of this Standard as applying to Wales through the definition in section 1.12 and 1.14.

C1.2 For Scheduled and Listed bridges, appropriate liaison with Cadw: Welsh Historic Monuments for the Welsh Assembly Government or the local planning authority should be maintained throughout the planning and execution of the work, and approvals obtained wherever required. The status of structures, whether Listed or Scheduled, should be confirmed with Cadw: Welsh Historic Monuments.

C1.3 Work on Scheduled bridges requires to be granted consent by Cadw: Welsh Historic Monuments.

C1.4 Work on Listed bridges requires to be granted consent by the local planning authority except where bridges are owned or controlled by the local authority, in which case applications must be made by the local authority to the Welsh Assembly Government (Planning Division).

C1.5 Structural modifications to all categories of bridge require approval via the Technical Approval Authority.

C1.6 When new construction is planned at, or in the vicinity of, a Scheduled or Listed structure, such as a new bridge alongside the original, it may also be necessary to consult the Design Commission for Wales. Advice on this should be sought from the Overseeing Organisation.

C1.7 Any temporary action is subject to the approval of Cadw: Welsh Historic Monuments and/or the local planning authority.

C2 APPLICATIONS FOR SCHEDULED MONUMENT AND LISTED BUILDINGS CONSENT

C2.1 The details required for applications to carry out work on Scheduled and Listed bridges vary according to the case in question. In general, the following information should normally be provided:

- i. Applications for SMC shall be made on forms obtainable from Cadw: Welsh Historic Monuments.
- ii. Background giving a description of the bridge, its history and historic importance, and the setting, for example whether it is in a Site of Special Scientific Interest or a Conservation Area.
- iii. The proposed construction work emphasizing conservation issues, archaeological recording and investigations (if required) and how the work will be planned to avoid undue disturbance.
- iv. Other issues such as interaction with utilities, traffic management, consultation with special interest groups and presentation of planned work to the public etc. will help to ease progress but will not be critical to the granting of SMC or LBC except where there are interactions with the planned schedule of conservation work.

C3 PRINCIPAL LEGISLATION AND GUIDANCE

C3.1 The principal Acts relevant to conservation of Scheduled and Listed bridges in Wales are given below.

- i. Ancient Monuments and Archaeological Areas Act 1979, (ref 2). This Act applies to works to scheduled ancient monuments. If a bridge is scheduled, then before works may be carried out to the bridge, it is most likely that Scheduled Monument Consent (SMC) will be required. Applications for SMC are to be made to the Welsh Assembly Government through Cadw. If a bridge is both Listed and Scheduled, only Scheduled Monument Consent will be required, not Listed Building Consent.

- ii. Planning (Listed Buildings and Conservation Areas) Act 1990, (ref 3). This Act makes provisions for works to Listed buildings and to unlisted buildings within conservation areas. It provides for the need for Listed Building Consent before a Listed building can be demolished, and also before it can be altered or extended in a manner which would affect its character as a building of special architectural or historic interest. In addition, Conservation Area Consent is required to demolish an unlisted building in a conservation area but not for its alteration. An application for either of these consents involving buildings or structures in private ownership would need to be made to the local planning authority. Applications by a local authority are required to be submitted to the Welsh Assembly Government for determination. In both cases the necessary forms are available from the local planning authority. The local planning authority is also normally required to notify Cadw: Welsh Historic Monuments of any private application for Listed Building Consent which they propose to grant.
- iii. Town and Country Planning Act 1990, (ref 18). If the proposed works to the bridge amount to development, then planning permission will also be required (in addition to any need for Listed Building Consent, Conservation Area Consent or Scheduled Monument Consent). This 1990 Act provides for the need for planning permission. Applications should be made to the local planning authority who will have the necessary forms.
- iv. Guidance can be obtained from non-statutory documents (refs 19 to 22).

ANNEX D SPECIFIC REQUIREMENTS: NORTHERN IRELAND

D1 PROCEDURES

D1.1 The procedures below shall be followed for all bridges coming under the scope of this Standard, as applying to Northern Ireland through the definitions in section 1.13 and 1.16.

D1.2 Appropriate liaison with D.O.E NORTHERN IRELAND and/or the DIVISIONAL PLANNING OFFICES shall be maintained throughout the planning and execution of the work, and approvals obtained where required. The Scheduled or Listed status of structures should be confirmed with EHS (ENVIRONMENT AND HERITAGE SERVICE) BUILT HERITAGE.

D1.3 Work on Scheduled bridges and all categories of Listed bridges requires granting of the appropriate consent through the Applications detailed in D.2.

D1.4 Structural modifications to all categories of structures require approval of the Technical Approval Authority.

D1.5 Where any new construction is planned at or in the vicinity of a Scheduled or Listed structure, such as a new bridge alongside the original, it may be necessary to consult both the DOE Divisional Planning Offices and EHS Built Heritage.

D2 APPLICATIONS FOR SCHEDULED MONUMENT AND LISTED BUILDING CONSENT

D2.1 Applications for Scheduled Monument Consent (SMC) shall be made to; D.O.E., NORTHERN IRELAND consult EHS BUILT HERITAGE.

D2.2 Application for Listed Building Consent shall be made to DIVISIONAL PLANNING OFFICES. The PLANNING SERVICE will consult EHS (ENVIRONMENT AND HERITAGE SERVICE) BUILT HERITAGE on applications affecting listed buildings.

D2.3 Details required for applications to carry out work on Scheduled and Listed Structures vary according to the case in question. In general the following information should normally be required:

- i. Applications should give a description of the bridge, its history and historic importance, and the setting, for example whether it is in a Conservation Area or a Site of Special Scientific Interest. Useful information about historic bridges that are neither Scheduled nor Listed may be found in the Civil Engineering Heritage Series, ref 12.
- ii. The proposed schedule of conservation work emphasizing conservation issues, archaeological recording and investigations (if required) and how the work will be planned to avoid undue disturbance.
- iii. Other issues such as interaction with utilities, traffic management, consultation with special interest groups and presentation of planned work to the public etc will help to ease progress but will not be critical to the granting of SMC or LBC except where there are interactions with the schedule of conservation work.

D3 PRINCIPAL LEGISLATION AND GUIDANCE

D3.1 Principal Acts and guidance documents relevant to conservation of Scheduled and Listed bridges in Northern Ireland are given below:

- i. The Historic Monuments and Archaeological (NI) Order 1995 (ref 3) applies to works to Scheduled Ancient Monuments. If a bridge is Scheduled, then before works can be carried out it is most likely that SMC will be required. Applications for SMC are to be made to consult EHS BUILT HERITAGE, D.O.E.
- ii. Planning Order (NI) 1991 (ref 6) makes provision for works to listed buildings. It provides for the need for Listed Building Consent (LBC) before Listed building can be demolished, and also before it can be altered or extended in a manner which would affect its character as a building of

special architectural or historic interest. An application for either of these consents would need to be made to the local planning office. The planning service will consult EHS BUILT HERITAGE on applications affecting listed buildings.

- iii. PPS 6 Planning Policy Statement 6; Planning, Archaeology and the Built Heritage (ref 23). This sets out the policies on planning and conservation of archaeology, Listed buildings, industrial heritage, parks, gardens and demesnes (including scheduled monuments). It is used by Government Departments to ensure that archaeological and historic remains receive due consideration in the process of planning control.