



PFI Expiry

Asset Condition Playbook Appendices

Contents

Associated document

1 Asset Condition Playbook

Foreword	2
Appendix A Playbook Definitions	3
Appendix B Base Data	8
Appendix C Asset Condition Classification Guidance	16
Appendix D Deed of Implementation	59

Foreword

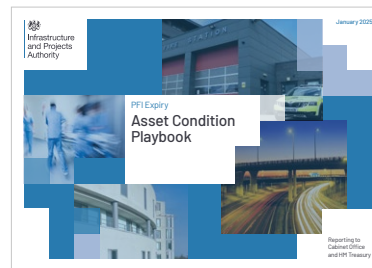
This Asset Condition Handback Playbook (“Playbook”) sets out a guidance framework for asset condition in relation to contract expiry. The Playbook follows, and should be read alongside, the Infrastructure and Projects Authority’s (the “IPA”) previous guidance on Preparing for PFI Contract Expiry.pdf (the “Guidance”).

These Appendices support - and should be read in conjunction with the Playbook.

Suite of documents links



[Preparing for PFI Contract Expiry.pdf](#)



[Asset Condition Playbook.pdf](#)

Appendix A Playbook Definitions

The following table comprises definitions of terms used in the survey tender scope document “CH4-1-Asset Condition Handback Survey Tender Scope” and is to be issued to bidders with the handback survey tender scope.

Term	Definition
Accessible Ceiling Inspections	Accessible Ceiling Inspections: Inspections of ceilings to ascertain condition of ceiling voids and associated assets.
Accommodation Schedule	Accommodation Schedule: A schedule of Estate accommodation as included in Annex 4.2 Accommodation Schedule.
Accompanying Documentation	Accompanying Documentation: The Annex documentation accompanying and forming part of the service scope.
Additional Services	Additional Services: Services agreed by the Appointers as being additional to the tendered scope of services.
Annual Maintenance Plan	Annual Maintenance Plan: A schedule of planned asset replacement/maintenance activities over the forthcoming 12 months.
Appointer Representative	Appointer Representative: The representative appointed by each Appointer to act as their administrator and nominated contact for the commission of the Survey.
Appointers	Appointers: The Authority and the SPV <i>[and, where relevant, FM Co]</i> .
Appointers’ Lead Representative	Appointers’ Lead Representative: One of the Appointer Representatives nominated by the Appointers to act as the lead representative for all of the Appointers in connection with the commission.
As Constructed Assets	As Constructed Assets: The specification of the Assets at the time of survey.
As-Built Drawings	As-Built Drawings: The set of drawings setting out the Estate as constructed at the time of survey, as included in Annex 4.3 As-built Drawings.
Asset	Asset: All relevant assets, being all fabric, Equipment, mechanical, electrical, and external works assets that form part of the particular Project Agreement contract scope, to NRM level <i>[4]</i> .

Appendix A Playbook Definitions

Term	Definition
Asset Data	Asset Data: The asset management compliance data and asset condition data to be provided by the Surveyor in line with the Services being provided.
Asset Management	Asset Management: The management of Assets as required by the asset management contract.
Asset Management (Compliance) Report	Asset Management (Compliance) Report: The report required from the asset management compliance review undertaken, as set out in Scope of Requirements.
Asset Register	Asset Register: A register of all assets and associated Asset Data, as included in Annex 4.4 Asset Register.
Authority	Authority: The public sector authority contracted to the SPV for the private finance initiative service.
Base Data	Base Data: Accommodation Schedule, As-built Drawings, Room Data Sheets, O&M Manuals, Asset Register, Condition Appraisals, PPM Task Lists, PPM Schedules, Equipment List (to the extent not included in the Asset Register), Variation Logs, Environmental Condition Data. As relevant and required contractually under the Project Agreement.
Bidder	Bidder: One of the companies tendering for the opportunity to provide the Services to the Appointers.
Compliance Audit Principles and Outputs	Compliance Audit Principles and Outputs: The overarching compliance audit principles and outputs required, as set out in Scope of Requirements.
Compliance Scale and Interpretation Guide	Compliance Scale and Interpretation Guide: The assessment descriptors and associated grades to be applied when assessing Asset Management provision as set out in Scope of Requirements.

Term	Definition
Computer Aided Facilities Management (CAFM)	Computer Aided Facilities Management (CAFM): The computer system utilised to manage Assets and associated facilities management provision.
Condition Appraisals	Condition Appraisals: Assessments made of Asset condition within the Estate.
Condition Survey Report	Condition Survey Report: The report required from the condition survey undertaken, as set out in Scope of Requirements.
Contract Additional Information	Contract Additional Information: Annual Maintenance Plans (to the extent not included in the PPM Schedules), Five-Year Maintenance Plans, Project Agreement and associated Schedules.
Critical Areas and Assets	Critical Areas and Assets: The list of critical areas and critical assets provided by the Appointers, to be taken into account when considering Sample Factors.
Data Capture	Data Capture: The collection of Asset Data by survey, in line with Annex 5-Data Capture Requirement.
DHSC	DHSC: The Department of Health and Social Care.
Element	Element: A major physical part of a building that fulfils a specific function, or functions, irrespective of its design, specification, or construction, as listed by the Building Cost Information Service (BCIS) of the Royal Institution of Chartered Surveyors (RICS).
Elements in Scope	Elements in Scope: Every Element and every Asset associated with every Element that has been confirmed as being in scope, as Annex 3 - Elements in Scope.
Environmental Condition Data	Environmental Condition Data: The environmental condition data that forms part of the asset management review, as included in Annex 4.1 Asset Management (Compliance) Review Checklist

Appendix A Playbook Definitions

Term	Definition
Equipment	Equipment: The equipment that forms part of the Estate to be surveyed, as included in Annex 4.5 Equipment List.
Equipment List	Equipment List: A list of Equipment that forms part of the Estate to be surveyed, as included in Annex 4.5 Equipment List.
Estate	Estate: The sites, buildings, and accommodation to be surveyed as part of the scope of the commission, as set out in Annex 2-Estate Details.
Facilities	Facilities: The Estate being managed by the SPV/ FM Co.
Five-Year Maintenance Plan	Five-Year Maintenance Plan: A schedule of planned asset replacement/maintenance activities over the forthcoming 12 months, and a forecast of asset replacement/maintenance activities over the following 48 months.
FM Co	FM Co: The facilities management company contracted to the SPV for the private finance initiative facilities management service.
Gross Floor Area	Gross Floor Area: The gross internal area of a building measured to the internal face of the perimeter walls at each floor level. The area is to include areas occupied by internal walls and partitions, service accommodation such as WC's, showers and changing rooms, columns, piers, lift wells, stair wells, lift rooms, plant rooms, tank rooms, fuel stores. The area is to exclude open balconies, open fire escapes, open sided covered ways, open vehicle parking areas, open terraces. Defined as International Property Measurement Standard 2. (IPMS 2) in the International Property Measurement Standards: All Buildings, 15 January 2023.

Term	Definition
IPA	IPA: the Infrastructure and Projects Authority
Known Issues	Known Issues: Exceptional and pre-existing issues known to the SPV at the time of the Condition Survey and Asset Management (Compliance) Review that will be listed by the SPV for the Surveyor to review as part of the Condition Survey and Asset Management (Compliance) Review.
Maintainable Assets	Maintainable Assets: Assets that the SPV is contracted to maintain as part of the Project Requirements.
Material or Imminent Risks to Health & Safety	Material or Imminent Risks to Health & Safety: Any material or imminent risks to the health and safety (including, without limitation, notifications required under the RICS Surveying Safely/HSAWA Duty of Care).
Method Statements	Method Statements: The method statements as listed in Scope of Requirements that are to be prepared and issued to the Appointers for approval and amended as required through the delivery of Services.
Non-intrusive Survey	Non-intrusive Survey: a comprehensive, non-intrusive, room by room, asset by asset survey, inclusive of Accessible Ceiling Inspections. The facilities to be surveyed shall be determined from the Estate Details, Accommodation Schedule and additional information taken from the Base Data.

Appendix A Playbook Definitions

Term	Definition
Non-intrusive Survey-Industry Standard	Non-intrusive Survey-Industry Standard: A Non-intrusive Survey using the condition grading, condition descriptors, and condition indicators provided by the accepted industry standard survey methodology for the sector within which the Estate sits. Where an accepted industry standard survey condition grading, condition descriptors, and condition indicators does not exist the NHS Risk Based Methodology for Establishing and Managing Backlog (2004) condition grading, condition descriptors, and condition indicators are to be used.
Non-intrusive Survey-Project Specific	Non-intrusive Survey-Project Specific: A Non-intrusive Survey using the project specific condition grading, condition descriptors, and condition indicators developed in line with Annex 6-Project Specific Asset Condition Indicators.
O&M Manuals	O&M Manuals: The Estate operational and maintenance manuals held on site by the Facilities maintenance team.
PFI	PFI: The Government's Private Finance Initiative.
Pilot Survey	Pilot Survey: A survey carried out prior to the main survey to inform the main survey process as included in the Scope of Requirements.
Playbook	Playbook: this playbook.
PPM Schedule	PPM Schedule: A list of Planned and Preventative Maintenance tasks that are to be carried out over a 12-month period, indicating task scope, timing, and frequency.
PPM Task List	PPM Task List: A list of Planned and Preventative Maintenance tasks that have been carried out, are being carried out, or are scheduled to be carried out.
Project Agreement	Project Agreement: The PFI contract agreed between the Authority and the SPV.

Term	Definition
Project Requirements	Project Requirements: The particular service and compliance requirements included in the contract governing the item that is surveyed.
Reactive Maintenance Scheduling/Reactive Work Orders/Remedial Work Orders	Reactive Maintenance Scheduling/Reactive Work Orders/Remedial Work Orders: The scheduling and completion of required reactive/remedial maintenance to Assets.
Rectification Works	Rectification Works: The works identified following the Survey and included by the SPV in the Annual Maintenance Plan and/or Five-Year Maintenance Plan following the Survey findings Triage Process.
Room Data Sheet	Room Data Sheet: A sheet of data providing room contract requirements including room schedules, room design criteria, room fabric requirements, room environmental requirements, room equipment requirements.
Sample Factors	Sample Factors: The factors to be taken into account when determining survey samples as included in the Scope of Requirements.
Scope of Requirements	Scope of Requirements: The Services to be provided by the Surveyor as part of this commission.
Service Improvement Plan	Service Improvement Plan: A schedule of activities over the forthcoming 12 months to improve service performance. <i>[Items other than condition as covered elsewhere].</i>
Services	Services: The services to be provided as set out in the Scope of Requirements
SPV	SPV: The private sector Special Purpose Vehicle contracted to the Authority for the private finance initiative service.
SPV Parties	SPV Parties: Parties related to the SPV, for which a Duty of Care may be required from the Surveyor.

Appendix A Playbook Definitions

Term	Definition
Survey	Survey: an early asset condition survey relating to the expiry condition of a PFI asset as envisaged by this Playbook.
Surveyor	Surveyor: The successful Bidder, chosen by the Appointees to carry out the Services.
Tender Issue	Tender Issue: The date the Appointers issue a tender for the Scope of Requirements.
Tender Process	Tender Process: The process for the Appointers to appoint the Surveyor to perform the Scope of Requirements.
Tender Return	Tender Return: A Bidder's submission to the Appointers to provide the Scope of Requirements.
Triage Process	Triage Process: The SPV allocation of Asset Management (Compliance) Review findings and Condition Survey findings to Service Improvement Plan, Annual Maintenance Plan, Five-Year Maintenance Plan, and helpdesk, as Appointers Principles clause 13(i), 13(ii) and 13(iii).
Variation (Change Order)	Variation (Change Order): A variation to the contract agreed by all relevant contract parties.
Variation Log	Variation Log: A schedule of contract Variations (Change Orders) over the contract period to date.

Appendix B

Base Data



Appendix B Base Data

Introduction

It is recommended that the Survey verifies the completeness of certain Asset Management documentation (collectively 'the Base Data' as defined within the Playbook). The project Base Data contains the information required for the operation, maintenance, and future use of the PFI asset. The Base Data is necessary for the safe and effective delivery of maintenance activities and evidencing compliance with statutory regulations.

Base Data

The recommended Base Data* to be audited is included below:

- Accommodation Schedule
- As-Built Drawings
- Room Data Sheets
- O&M Manuals
- Asset Register
- Condition Appraisals
- PPM Task Lists
- PPM Schedules
- Equipment lists (to the extent not included in the Asset Register)
- Environmental Condition Data
- Variations Log

*Note – Derogations or additions to this list may be required depending upon the asset type or where the Base Data item(s) are not required by the Project Agreement.

Contractual obligations

The requirement to ensure Estate information, including Base Data items, is available and is up to date is typically contained within both the Project Agreement and Output Specification. Given the contracts are output based the format and scope of the Base Data may not be stated. Where the contract isn't clear, it is recommended the Appointers agree on a format prior to the appointment of the Surveyor, however the content should typically as a minimum include the following:

- Sufficient information to evidence compliance with legislation, relevant codes of practice and guidance in order to complete the 'Asset Management Compliance Review' (see Playbook annex 4-1 and appendix B)
- An up-to-date 'Health and Safety File' containing enough information to satisfy the Construction, Design and Management Regulations and the Management of Health & Safety at Work Regulations.
- Information required to regularly inspect and fully maintain all elements of all fire protection systems in compliance with The Regulatory Reform (Fire Safety) Order 2005.

Commonly contract documents contain drafting requiring that O&M Manuals and As-Built Drawings are maintained and updated throughout the contract period. Typical drafting from a post SOPC4 contract is included below for reference.

- 'Project Co shall, through the Services Period, maintain and update an operation and maintenance manual setting out the procedures for providing the Services'.
- 'At contract expiry Project Co shall hand over 'as-built drawings and as-installed drawings showing all alterations made prior to or since the commencement of the Works'.
- 'On completion of a change update the as-built drawings and operating and maintenance manuals as necessary to reflect the change'.

Appendix B Base Data

Preparation of Base Data

The Base Data should be collated by the SPV (with the Authority’s cooperation) prior to the commencement of the Survey and details of any missing data should be reported to the appointed Surveyor. It is recognised that it may be a considerable task to update Base Data if updates have not occurred regularly throughout the concession period or if documents have gone missing due to lack of continuity in facilities management.

Updating As-Built Drawings in particular can be a major task, the original list of built drawings on a large project could run to several hundred or even thousand individual drawings. A single change of use of a room can theoretically require the updating of a large number of drawings, such as general arrangement, fire, building services, ceilings, Room Data Sheets etc. It is recommended that the requirement to update drawings is interpreted pragmatically by the Appointers based on the data that will be required to operate the Facilities following contract expiry. Drawings should also be provided to comply with the requirements of The Construction (Design and Management) Regulations (CDM) which came into force in March 1995 and therefore predates most PFI contracts. The Appointers should also set out any drawings needed in order to comply with “Law” and “Good Industry Practice” (each as required by and defined in the relevant Project Agreement).

Where significant works are required to bring Base Data up to date these should be identified well in advance of the Survey by the SPV and reviewed with the other Appointers. Given the required timescales and complexity of completing updates or locating missing data, it is recommended that the SPV assesses Base Data completeness 12 to 24 months before the intended Survey date.

Assessment of Base Data

The table below provides guidance on the data expected to be made available as part of the Base Data and how it can be assessed. The authoritative descriptions regarding the format and extent of Base Data will need to be extracted from the Project Agreement and related contract documents. It is recommended that the relevant sections of the contract(s) are identified and included in the briefing documents provided to the appointed Surveyor.

Base Data	Suggested minimum contents and assessment criteria
<p>As-Built Drawings</p>	<p>It is recommended that the SPV provide a drawing register including confirmation that where necessary approved changes are reflected on the updated As Built Drawings.</p> <p>The number and type of drawings provided should be based on a pragmatic assessment of the contract by the Appointers.</p> <p>Drawings expected to be reviewed include:</p> <ul style="list-style-type: none"> – Structural: General Arrangements – Architectural: General Arrangements, Elevations – Mechanical: General Arrangements, Schematics – Electrical: General Arrangements, Schematics – External Services: General Arrangements, Schematics – External Works: General Arrangements <p>The Appointers should agree on the percentage of drawings to be checked by the appointed Surveyor. The Surveyor’s report should include:</p> <ul style="list-style-type: none"> – Confirmation that the As-Built Drawings exist insofar as they are relevant and required contractually. – Sample check that As-Built Drawings incorporate agreed variations. – As-Built Drawings materially reflect current room layouts <p>Early contracts may be silent on the format of drawings to be provided; however electronic formats have greater utility for future use. It may be considered appropriate for PDF format drawings to be converted into a CAD format to enable changes to be incorporated. The Appointers should discuss whether and if this is required and how this might be done considering any relevant Project Requirements.</p>

Appendix B Base Data

Base Data	Suggested minimum contents and assessment criteria
O&M Manuals	<p>The SPV should make available a full copy of the O&M Manuals including confirmation that the manual is up to date and incorporates product information relevant to agreed variations and lifecycle works. An example check list of typical O&M contents is appended to this guidance.</p> <p>The appointed Surveyor's scope includes reviewing the manuals. The Surveyor should identify whether the manuals are complete and up to date including updates required as a consequence of agreed variations or lifecycle works.</p> <p>Where the O&M Manual also forms the Health and Safety File under the Construction Design and Management Regulations, the appointed Surveyor should check the manuals and confirm that relevant information required under the Regulations is in place.</p> <p>Early contracts may be silent on the format of O&M Manuals to be provided; however electronic formats have greater utility for future use. It may be considered appropriate for hard copy manuals to be scanned and converted into an electronic format to enable changes to be incorporated. The Appointers should discuss whether and if this is required and how this might be done considering any relevant Project Requirements.</p>
Schedule of Accommodation	<p>A current and accurate schedule of accommodation should be provided by the SPV using an appropriate room numbering system updated to reflect authorised variations.</p> <p>Typically, this might include:</p> <ul style="list-style-type: none"> – Architectural Room References – Alternative Room References (if applicable) – Conformed Location References (Site/Building/Floor) – Departmental Location (if applicable) – Floor Area m² – Function unit area type <p>It is recommended that the appointed Surveyor checks a percentage of rooms for compliance. Checks should include the following:</p> <ul style="list-style-type: none"> – Room is present on the schedule of accommodation and is numbered correctly. – Rooms subject to authorised variations have changes updated on the accommodation schedule.

Base Data	Suggested minimum contents and assessment criteria
Room Data Sheets	<p>Not all projects include a requirement for Room Data Sheets to be provided. The requirements for Room Data Sheets should be determined by the Appointers prior to the appointment of the Surveyor.</p> <p>Where required under the Project Agreement a current and accurate set of Room Data Sheets should be provided by Project Co using an agreed room numbering system updated to reflect agreed variations.</p> <p>If relevant, it is recommended that the appointed Surveyor checks a percentage of rooms for compliance with the Room Data Sheet. Checks should include the following:</p> <ul style="list-style-type: none"> – The contents of the Room Data Sheet and room generally align. – Rooms subject to authorised variations have material changes updated on the Room Data Sheets.
PPM Tasks	<p>Details of the current PPM regime will need to be made available to the appointed Surveyors including details of how PPM tasks are linked to the Asset Register.</p> <p>The appointed Surveyor should carry out a sample audit of PPM tasks including the following:</p> <ul style="list-style-type: none"> – Sample check of PPM tasking to assess compliance with PPM regime and report on adequacy of the PPM regime to comply with Good Industry Practice (as defined in the Project Agreement) and manufacturers recommendations (where required by the Project Agreement). – Report on the effectiveness of the PPM regime for both building fabric and mechanical and electrical Assets based on the identification of remedial tasks and their successful resolution.
Asset Register	<p>A current and accurate Asset Register should be provided by the SPV including details of checks that have been performed to confirm its accuracy.</p> <p>The appointed Surveyor should carry out a sample audit of the Asset Register against installed Assets to assess accuracy and completeness.</p>
PPM records and statutory inspections	<p>Test certificates and other documentation required to evidence compliance with the Asset Compliance Checklist (see annex 4-1 Asset Management Review Checklist) will need to be provided to the appointed Surveyor to review.</p>

Appendix B Base Data

Base Data	Suggested minimum contents and assessment criteria
Equipment Lists	<p>The current Equipment List to the extent not included in the Asset Register should be provided by the SPV including confirmation that it is agreed with the Authority. Evidence should also be provided that Equipment has been checked to ensure it is physically present, in its correct location and is in a suitable condition.</p> <p>It is recommended the Surveyor carries out a sample review of Equipment and checks the following:</p> <ul style="list-style-type: none"> – The Equipment is physically present – Where applicable the correct number of assets are present chairs/tables etc. – Assets are working and are in compliance with the condition requirements of the contract.
Reactive maintenance reports for trend analysis	<p>Access to help desk records and FM Co maintenance reports should be provided if requested by the Surveyors.</p>
Variations Log	<p>Access should be provided by the SPV if requested to a full list of agreed contract variations.</p>
Records evidencing compliance with the environmental conditions	<p>The requirements for evidencing compliance with environmental performance standards required by the Contract are contained within sections 3.4.4, 3.5.12 and 3.6.4 of the Playbook.</p> <p>Available evidence should be provided by the SPV that environmental performance standards detailed in the Project Agreement are being achieved.</p> <p>Records should be consistent with the requirements of each individual contract however this would typically be expected to be consistent with the requirements of relevant British Standards, CIBSE and BISRA guidance contemporaneous to the signing of the contract.</p> <p><i>continued...</i></p>

Base Data	Suggested minimum contents and assessment criteria
Records evidencing compliance with the environmental conditions <i>continued</i>	<p>The types of data that may be available to be shared with the Surveyor include the following:</p> <ul style="list-style-type: none"> – The original test certificates and design parameters such as flow rates and temperatures for ventilation and heating systems. – Data from the BMS system (where installed) including: <ul style="list-style-type: none"> > Room temperatures and set points > Ventilation system operational performance data > Domestic hot water storage and flow/return temperatures, logs recording failures/critical alarms – Lighting lux level checks from the SPV/FM Co monitoring. – Domestic hot water TMV checks and temperature measurements. – Mechanical ventilation flow rates for air handling plant. – Flow rates and temperatures for closed loop systems. – Commissioning data from completed variation and lifecycle works. <p>The level of validation of environmental performance data undertaken by the Surveyor will be determined by the Appointers.</p> <p>When determining the level of environmental validation it is recommended that the factors considered include the complexity of the asset, the level and quality of Environmental Condition Data available, current or historical performance issues and cost.</p> <p>In some projects such as healthcare schemes certain Environmental Condition Data is required to be validated on a periodic basis in order to comply with regulatory requirements and NHS guidance. Where this is the case and subject to the Surveyor being confident in the data being presented, this may be used as evidence of compliance and the sampling size or locations adjusted as a result.</p> <p>More detailed investigations should be carried out where they are required by the Appointers or were recommended for further investigation by the Surveyor. Relevant information might include complaints by building users that spaces are too hot/too cold, missing PPM records or poor physical condition.</p> <p>Note: Experience from pilot hand back surveys indicates that the measurement of ventilation flow rates in PFI assets with extensive HVAC installations can be time consuming, disruptive and costly. If Project Co is able to provide ventilation performance data in an appropriate format (CIBSE or similar) showing repeatability of the original commissioning volumes (for example as design v actual performance measured with a pitot tube flow meter or Balometer) this may enable the sample percentage validated in the survey as set out in annex 4-6 of the Playbook to be amended or reduced.</p>

Appendix B Base Data

O&M checklist

The checklist below includes an example O&M Manual contents as an illustration of possible contents. Where the format of the manuals is clear from the original project documents then this structure should form the basis of the audit. In the absence of a clear format being provided the appointing parties should agree a format and contents list prior to the appointment of the Surveyor.

It is recommended that the SPV checks the contents of the O&M Manual prior to inspection by the Surveyor to ensure that the O&M Manuals is complete and up to date.

Example O&M File Structure

Volume	File name		Documents present	Comments/ updates completed
1.0 Health & Safety File	1.01	Health & Safety File		
2.0 Design Consultants Specifications, Reports and Certificates	2.01	Design and Access Statement		
	2.02	Design Team Details		
	2.03	Roof Access Strategy		
	2.04	Architectural Design Hazards and Risk Assessments		
	2.05	Civil and Structural Design Hazards and Risk Assessments		
	2.06	MEP Services Design Hazards and Risk Assessments		
	2.07	Lock Suiting		
	2.08	Final Completion Certificate (Building Control)		

Example O&M File Structure

Volume	File name		Documents present	Comments/ updates completed
2.0 Design Consultants Specifications, Reports and Certificates <i>continued</i>	2.09	Design Compliance Statements		
	2.10	Secured By Design Certificate		
	2.11	Acoustic Performance Statement		
	2.12	BREEAM Certificate		
	2.13	Energy Performance Certificate		
	2.14	Architectural and Landscape Specifications		
	2.15	Civil, Structural and Services Specifications		
	2.16.16	Fixed Furniture Schedule		
	2.16.06	Loose Furniture Schedule		
	2.16.08	External Furniture Schedule		
	2.16.10	Hand Tools Schedule		
2.16.11	Sound and Lighting Equipment Schedule			
3.0 Design Consultants Drawings	3.01	Architectural Drawings		
	3.02	Civil and Structural Drawings		
	3.03	Landscape Drawings		
4.0 Building Structure	4.01	Substructure, Drainage and Superstructure		
	4.02	Piling Foundation		
	4.03	Structural Steel O&M Manual		

Appendix B Base Data

Example O&M File Structure				
Volume	File name		Documents present	Comments/ updates completed
5.0 Building Envelope	5.01	Brick and Blockwork		
	5.02	Automatic Doors		
	5.03	Windows		
	5.04	Curtain Walling		
	5.05	Teleflex Systems		
	5.06	Rainscreen Cladding		
	5.07	External Render		
	5.08	Brise Soleil and Louvres		
	5.09	External Wall Metal Support Systems		
	5.10	Metal Roofing		
	5.11	Membrane Roofing		
	5.12	Roof Man safe System		
	5.13	Roof Lights		
6.0 Internal Fabric/Finishes	6.01	Internal Partitions		
	6.02	Internal Joinery and Timber Doors		
	6.03	Suspended Ceilings		
	6.04	Plasterboard Ceilings		
	6.05	Floor Screeds		
	6.06	Ironmongery		
	6.07	Ceramic Tiling		
	6.08	Soft Floor Finishes		
	6.09	Epoxy Floor Finishes		
	6.10	Timber Flooring		
	6.11	Painting and Decorating		
	6.12	Fire Protection		

Example O&M File Structure				
Volume	File name		Documents present	Comments/ updates completed
6.0 Internal Fabric/Finishes <i>continued</i>	6.13	Smoke Curtains		
	6.14	Acoustic Panelling		
	6.15	Internal Wall Corner Protection		
	6.16	Sub-Station Door		
7.0 Fixtures, Fittings and Equipment	7.01	IPS Panels and Toilet Cubicles		
	7.02	Folding Partitions		
	7.03	Blinds and Curtains		
	7.04	Signage		
	7.05	Metal Staircases and Balustrades		
	7.06.01	Fixed and Loose Furniture		
	7.06.02	Furniture Equipment Schedules		
	7.07	Main Reception Counter		
	7.08	Technology Equipment		
	7.09	Audio and Visual Equipment		
	7.10	Sports Equipment		
	7.11	Overhead Hoist		
	7.12	Mirrors		
7.13	Mastic Sealants			
8.0 Lifts	8.01	Lift O&M Manual		
9.0 External Works	9.01	Soft Landscaping		
	9.02	Hard Landscaping		
	9.03	External Furniture		
	9.04	Fencing and Gate		

Appendix B Base Data

Example O&M File Structure				
Volume	File name		Documents present	Comments/ updates completed
10.0 Mechanical and Electrical Services	10.01	Mechanical Services Master Index		
	10.01.01	General Information		
	10.01.02	Test Certificates		
	10.01.03	Manufacturers Literature		
	10.01.04	As Fitted Drawings		
	10.01.05	Building Energy Management System		
	10.01.06	Sprinkler System		
	10.02	Electrical Services - Master Index		
	10.02.01	General Information		
	10.02.02	Test Certificates		
	10.02.04	Manufacturers Literature		
	10.02.06	As Fitted Drawings		
	10.03	Building Users Guide (M&E Services)		
	10.04	Building Management Systems		

Appendix C

Asset Condition Classification Guidance



Appendix C Asset Condition Classification Guidance

1.0 Introduction

This document is intended to support the completion of the asset condition surveys detailed within the Playbook. This document provides practical guidance on the condition coding of PFI assets to be applied by the Surveyor.

2.0 Asset condition classification

The methodology proposed within this guidance advocates assessing assets against the specific condition requirements of their respective contracts and also applying an industry standard condition rating. The Surveyors, where the appointers agree, will be required to assess each PFI asset both against the individual project requirements and an industry standard condition rating.

It is recognised that the specific condition requirements of each contract will naturally take precedence over the assessments made against an industry standard condition rating. However, the IPA believes that in view of the complexity, varying maturities, and detail of the contractual approach to expiry of different vintages of PFI contracts, all market stakeholders would benefit from a common asset condition classification methodology.

This approach will allow individual contract drafting to be respected whilst also allowing easy comparison with other assets within portfolios. It is also envisaged that this will enable Appointers to negotiate pragmatic lifecycle works programmes for the remaining concession period, particularly where the project-specific condition indicators are not clear, or the literal interpretation of contract drafting will lead to unnecessary works.

The industry standard asset classification system used will be the DoH system described in 'A risk-based methodology for establishing and managing backlog' published by NHS England as the default Industry Standard Asset Classification System which is further described within section 4.0.

3.0 Condition and compliance

Condition

Commonly PFI contracts contain obligations both to design and construct physical assets and then to maintain these assets to defined condition standards.

The principal focus of the Asset Condition Handback Survey described within the Playbook is to assess if the assets have been maintained in accordance with the standards referenced within the contract.

Compliance

The current scope of the Asset Condition Handback Survey does not include a systematic compliance assessment of assets.

It is possible that the Surveyor will make compliance observations or uncover construction stage defects during the Survey. Included below is a description of how it is recommended the Surveyor address items falling into this category.

The Services require the Surveyor to undertake a Non-intrusive [*semi-intrusive, with sample accessible ceiling inspections*] Survey of the entirety of the Facilities.

Although express deliverables of the Services are finite [*condition report, CSIG etc*], the Surveyor may, in the conduct of its work observe or identify matters which are outside of the express deliverables of the Service, but which, in its professional opinion may represent manifestations of deficiencies in the design or construction of the Facilities or element(s) of the Facilities. These matters may be important and warrant further consideration by the Appointers, regardless of whether they meet the definition of 'Material or Imminent Risks to Health & Safety'.

Appendix C Asset Condition Classification Guidance

If requested, the Surveyor shall notify the Appointers of any such observations, and make recommendations, if any, which in its opinion would be appropriate for the Appointers to further consider.

This requirement, in response to its overarching duty to exercise reasonable skill and care, does not extend to an express requirement that the Surveyor shall be deemed to de-facto certify that the Facilities are free from Defects (save for those matters, if any, notified), nor that those matters, if any, notified are in themselves Defects.

The Surveyor is not required to, nor deemed to have, familiarised itself with the Project Agreement construction specification (Output Specification, Trusts Construction Requirements, Project Co's Proposals etc.) in the proper performance of the Services.

Defects would generally be defined as something which is patently, or is determined to be, a deficiency in the design and or construction of the Facilities in comparison to the Project Agreement construction specification. The standard of proof required in such determination is greater than, and different to, the deliverables which the Surveyor is instructed to produce in accordance with the Services.

The Surveyor shall be aware that the Appointers may need to further investigate (themselves, or with others) any notified matters to subsequently identify or determine whether such matter(s) are in fact Defects. The Surveyor is not required to make such a determination.

Examples – building fabric:

Examples of building fabric items that might not fail the project specific condition obligations of the Project Agreement but might constitute design or construction deficiencies include:

- Excessive ponding to flat roofs or gutters
- Bridging to damp proof courses
- Poor quality workmanship either from original construction or lifecycle works when compared to the British or European standards (in place at the time of construction).
- Inappropriate repair techniques not in accordance with “Good Industry Practice” or manufacturers recommendations

Examples – mechanical and electrical

Examples of mechanical and electrical items that might not fail the project specific condition obligations of the Project Agreement but might constitute design or construction deficiencies include:

- Missing pipework insulation;
- Inappropriate mixing of fire alarm and low voltage cables;
- Missing ventilation access hatches ;
- Missing safety signs or labelling;
- Lack of safe maintenance access;
- Workmanship issues or missing subcomponents; and
- Unapproved changes in engineering strategy such as reduced redundancy or installed capacity

Appendix C Asset Condition Classification Guidance

4.0 Industry standard asset condition classification

NHS asset condition classification

The Survey templates within the Playbook require assets to be classified in accordance with the DoH/NHS asset classification system is summarised in the table below.

Further guidance on the detailed interpretation of this classification system can be found in the 'A risk- based methodology for establishing and managing backlog' published by NHS England'. For reference the detailed condition classification guidance included within this document has been included in annex 1.

Condition Rating	Description
A	As new and can be expected to perform adequately to its full normal life
B	Sound, operationally safe and exhibits only minor deterioration
B(C)	Currently as B but will fall below B within five years.
C	Operational but major repair or replacement is currently needed to bring up to condition B.
D	Operationally unsound and in imminent danger of breakdown.

5.0 Project specific asset condition classification

The Survey templates within the Playbook require assets to be classified in accordance with a Project Specific Asset Condition Classification system.

An example of a project-specific asset classification coding system is included below:

Condition Rating	Description (Project Specific)
A	As new and fully compliant with the relevant Project Requirements.
B	Fully compliant with the relevant Project Requirements, sound, operationally safe, exhibits only minor deterioration and in the case of internal and external fabric is of good appearance.
B(C)	Currently as B, but will fall below B within 5 years.
C	Non-compliant with the Project Requirements, operational, but major repair or replacement is currently needed to bring up to condition B.
D	Operationally unsound and in imminent danger of breakdown.

Development of the Project-Specific Condition Indicators by the Surveyor

Condition ratings A, B and B(C) are regarded as meeting the condition obligations of the contract whereas assets coded as C and D are regarded as falling below the contracts condition requirements. To be coded A, B or B(C) an asset must be assessed as being compliant with the relevant Project Requirements.

It is essential to note that "compliant with the relevant Project Requirements" is a project-specific definition which requires the determination and agreement of all physical asset condition/compliance requirements per the Project Agreement. This is a substantial task requiring appropriate interpretation and competence.

All detailed grade indicators are relative to project-specific 'relevant Project Requirements' and should not be read as transferable across projects.

Appendix C Asset Condition Classification Guidance

The process

With regard to condition:

1. The SPV shall provide, or procure that its sub-contractors provide the Surveyor with the existing Base Data and a copy of the Project Agreement.
2. The Surveyor shall review the Base Data and identify to the Appointers any additional information which the Surveyor reasonably requires to perform the Services.
3. The SPV shall provide, or procure that its sub-contractors provide, the additional information reasonably requested by the Surveyor in connection with the Scope of Requirements.
4. The Surveyor shall identify the project-specific condition requirements relating to the Base Data contained within the Project Agreement relating to the delivery of the maintenance services.
5. The Surveyor shall agree the Project Requirements with the Appointers and list them within the template in annex 6 of the playbook at the following levels :
 - a. in respect of individual assets;
 - b. in respect of individual systems; and
 - c. in respect of individual areas (or types of areas where applicable).

With regard to the 'Asset Maintenance Checklist' (Annex 4-1):

1. The Surveyor shall review the standard list of items contained within checklist and provide the Appointers with its proposed list of standards to be added or subtracted to this list in the Compliance Audit, taking full account of the Project Requirements.
2. The Surveyor shall meet with the Appointers to discuss the proposed list of standards and agree any amendments or additions.

With regard both:

1. The Surveyor and the Appointers shall agree the list of standards to be adopted in the Survey and the review of asset maintenance data.
2. The Surveyor shall provide the Appointers with its proposed templates and methodology for the Survey and the Asset Maintenance Checklist, taking full account of the list of standards agreed with the Appointers.
3. The Surveyor's proposed templates and methodology shall address each of the items listed.
4. The Surveyor shall meet with the Appointers to discuss and agree the proposed templates and methodology for the Survey and the Compliance Audit, and agree any amendments or additions.
5. If requested, the Surveyor shall participate in the following activities with the Appointers:
 - a. A workshop to discuss and agree:
 - i. the practical application of the Condition Scale for use in the Survey ("Condition Scale Interpretation Guide");
 - ii. the practical application of the Compliance Scale for use in the Compliance Audit ("Compliance Scale Interpretation Guide");
 - b. A pilot survey to assess the suitability of templates, methodology, the Compliance Scale Interpretation Guide and Condition Scale Interpretation Guide to be implemented in the Survey. The Appointers may participate in the pilot survey process.
6. Following completion of the above, the Surveyor and the Appointers shall agree the templates, methodology, the Compliance Scale Interpretation Guide and Condition Scale Interpretation Guide prior to commencement of the Survey and Compliance Audit.

Appendix C Asset Condition Classification Guidance

Guidance on Developing the Project Specific Condition Indicators

The contractual obligations relating to asset condition are often provided in a variety of locations throughout the suite of documents forming the PFI contract. Typically, these might include the following:

- The Project Agreement
- Maintenance Service Level Agreements (SLA's)
- Output Specifications (Services)
- Room Data Sheets
- The Payment Mechanism

PFI contracts are typically structured with an output-based condition requirement. PFI assets need to be assessed as either meeting this standard or not on a pass/fail basis. Where the condition requirements of the contract are not being achieved these should be recorded as a failure (Condition C) on the survey template along with the reason for the failure.

Assets falling below the maintenance standard may not require full lifecycle replacement to bring the asset back into compliance.

How assets are coded will likely be an area of keen interest for the Appointers. Where agreed a Pilot Survey may be completed by the Surveyor in advance of the main survey so all parties can gain confidence that the results being presented accord with the requirements of the Project Agreement.

Commonly "Service Level Specifications" describe the condition assets are required to achieve. Specific descriptions are often provided of what constitutes acceptable condition of each type of building component such as roofs, walls, flooring, mechanical and electrical items etc.

The Surveyor should familiarise itself with the services specification for the contract and raise any queries relating to interpretation of relevant clauses with the Appointers.

In addition to assessing compliance with the Service Level Specification other condition requirements will likely be contained within other parts of the PFI documentation. These will likely include the Project

Agreement, Output Specification, room data sheets and the availability criteria within the Project Agreement payment mechanism.

Appendix C Asset Condition Classification Guidance

Example condition scale interpretation guide

The table below provides an extract from a completed condition scale interpretation guide:

Building assets	Condition (B)	Condition (B/C)	Condition (C)	Condition (D)
Walls	<ul style="list-style-type: none"> – Minimal deterioration of brickwork – Shrinkage cracks to bricks, not substantial, generally surface cracks or with minimal impact – Sound secure and weatherproof, where appropriate – Free from damp penetration or spalling – Free from debris, moss growth and graffiti 	<ul style="list-style-type: none"> – Minimal deterioration of brickwork – Shrinkage cracks to bricks, not substantial, generally surface cracks or with minimal impact – Sound secure and weatherproof, where appropriate – Free from damp penetration or spalling – Free from debris, moss growth and graffiti – Expected to fall below Condition 2 within 5 years 	<ul style="list-style-type: none"> – Major deterioration and/or damage – Flaking/crumbling brickwork and mortar joints and showing signs of deterioration – Areas of cracking either to brickwork directly or following mortar joints – Walls pulling away, internal evidence showing, extensive cracking noted – Signs of damp with algae build-up on surface – Unsound, unsecure secure and not weatherproof, where appropriate – Damp penetration or spalling present – Debris, moss growth and graffiti present 	<ul style="list-style-type: none"> – Significant decay/spalling to brickwork and mortar joints which may compromise the stability of the structure – Walls bulging/leaning and/or unstable – Extensive areas of cracking either to brickwork directly or following mortar joints – Significant evidence of walls pulling away, internal evidence showing, significant cracking noted and/or floors dropping – Substantial/significant cost implications
Floors	<ul style="list-style-type: none"> – No distortion defect – Floor is sound under foot with no deflection – Minimal insect infestation – Free from damp penetration or spalling – Sound secure and weatherproof, where appropriate 	<ul style="list-style-type: none"> – No distortion defect – Floor is sound under foot with no deflection – Minimal insect infestation – Free from damp penetration or spalling – Sound secure and weatherproof, where appropriate – Expected to fall below Condition 2 within 5 years 	<ul style="list-style-type: none"> – Major deterioration and/or damage – Floor distortion noted/bowing of floor – Floor plates corroded/distorted – Timber rot/corrosion evident in many areas – Excessive signs of damp with algae build up on surface – Unsound/unsecure/not weatherproof 	<ul style="list-style-type: none"> – Significant failure/distortion/major rot/corrosion – Significant safety concerns – Significant and extensive damp penetration – Replacement is the only option – Substantial/significant cost implications
Roofs	<ul style="list-style-type: none"> – No distortion defect – Sound secure and weatherproof, where appropriate – Free from damp penetration or spalling – Free from debris, moss growth and graffiti – Free from damp penetration or spalling – Chimney stacks/flues appear to be structurally sound 	<ul style="list-style-type: none"> – No distortion defect – Sound secure and weatherproof, where appropriate – Free from damp penetration or spalling – Free from debris, moss growth and graffiti – Free from damp penetration or spalling – Chimney stacks/flues appear to be structurally sound 	<ul style="list-style-type: none"> – Major deterioration and/or damage – Frame distortion noted – Bowing of roof structural components – Insect infestation severe – Timber rot/corrosion evident in many areas – Unsound/unsecure/not weatherproof 	<ul style="list-style-type: none"> – Significant failure/frame distortion/major rot/corrosion – Significant safety concerns – Replacement is the only option – Substantial/significant cost implications

Appendix C Asset Condition Classification Guidance

6.0 Good industry practice

Commonly PFI contracts require maintenance to be carried out in accordance with Good Industry Practice. A hand back survey could involve the need for the Surveyor to make assessments as to whether PFI assets are being maintained in accordance with this contractual requirement.

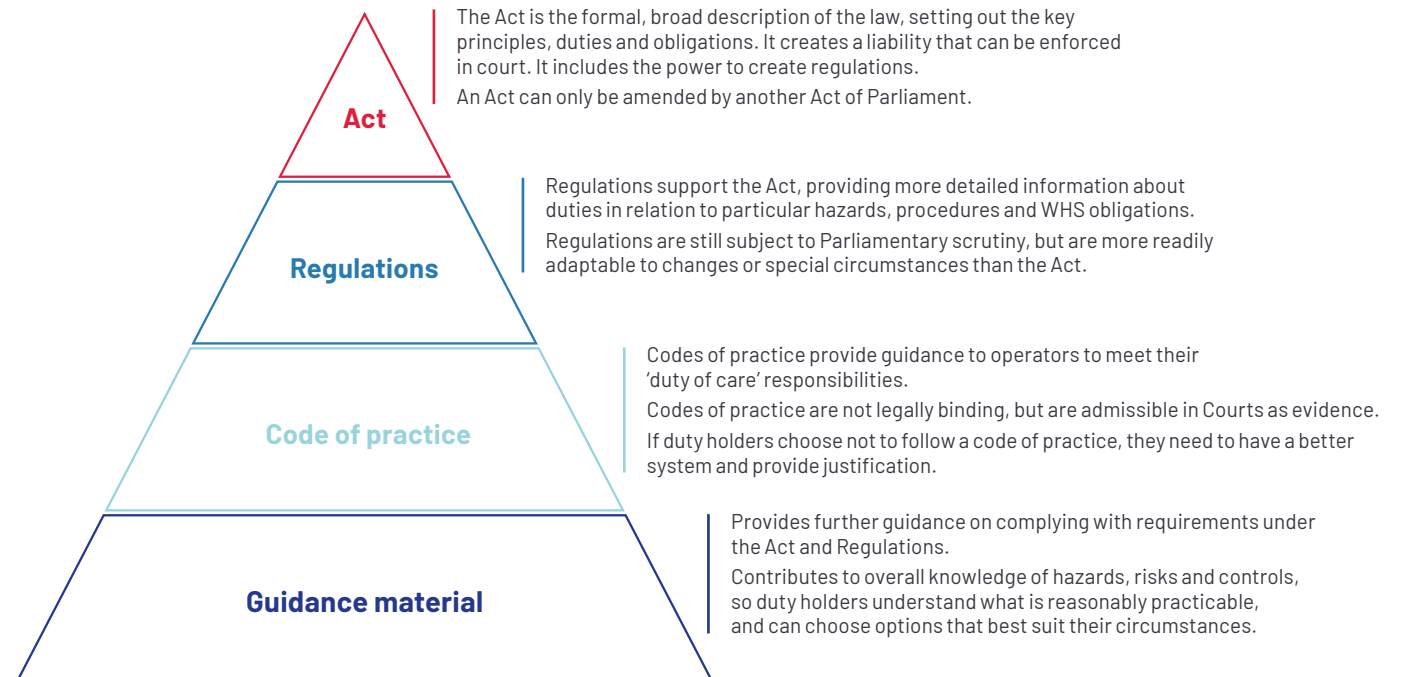
The term ‘Good Industry Practice’ is usually a defined term within the Project Agreement. The project-specific definition should be adopted for any analysis of the meaning of Good Industry Practice.

However, the term often requires further practical interpretation and application, and can be an area of disagreement between the parties.

Good Industry Practice typically includes complying with the Law. This includes relevant legislation and regulations. Certain codes of practice include requirements considered to be mandatory for example, Approved Codes of Practice (ACoPs), European and British Standards, IEE Regulations, etc.

Guidance material such as that produced by the Chartered Institute of Building Services Engineers (CIBSE) and the Building Services Research and Information Association (BSRIA), or sector specific advice such as the Department of Health, Health Technical Memoranda (HTMs) may also typically be considered Good Industry Practice.

The legal framework in law is summarised in the legal hierarchy below:



The practical interpretation of the requirement to comply with Good Industry Practice is complex and requires a competent and pragmatic approach taking into account an assessment of the risks involved and what is reasonably practicable.

Appendix C Asset Condition Classification Guidance

The tables below provide a summary of the key legislation, codes of practice and guidance commonly referenced during asset condition surveys of PFI assets. They do not include sector specific guidance and standards such as Health Technical Memoranda (Health Projects), Building Bulletins (Education) and Joint Service Publications (Defence Projects) which should be referenced in the survey scope where appropriate by the Appointers .

Summary of example key reference acts, regulations, codes of practice and guidance

Acts

Item	Act
Health and Safety	Health and Safety at Work Act 1974 (HASAWA)
Building Regulations	The Building Act 1984
Fire Safety	The Regulatory Reform (Fire Safety) Order 2005
Electrical Safety	Electricity at Work Act 1989

Regulations

Item	Act
Health and Safety	The Workplace Health, Safety and Welfare Regulations 1992
PAT Testing	Provision and Use of Work Equipment Regulations 1998 (PUWER) HSG 107 - Maintaining portable and transportable electrical equipment
F Gas	Regulation (EU) No 517/2014, Article 13(3)
Pressure Vessels	Pressure Equipment (Safety) Regulations 2016
Lifts	Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
Asbestos	Control of Asbestos Regulations 2012
Storage of Chemicals	Control of Substances Hazardous to Health (COSHH)
Electrical installations	IET Wiring Regulations BS 7671:2008 Electricity at Work Regulation 1989 18th Edition BS 7671 Wiring Regulations
Gas Safety	Gas Safety Regulations 1998 (GSIUR) Approved Code of Practice and Guidance
CDM Regulations	Construction Design and Management Regulations
Ladders and Safe Access	Provision and Use of Work Equipment Regulations 1998 (PUWER) The Work at Height Regulations 2005
Confined Spaces	Confined Spaces Regulations 1997
Energy Efficiency	Energy Performance of Buildings Regulations 2012

Appendix C Asset Condition Classification Guidance

Code of practice and guidance

Item	Act
Maintenance Management	CIBSE Guide M – Maintenance Engineering and Management 2014 SFG 20 – Building Maintenance Specification
Fire Safety	BS 9999: 2017 – Fire safety in the design, management and use of building. Code of Practice
Fire Alarms	BS 5839 Fire detection and fire alarm systems for buildings
Fire Extinguishers	BS 5306 – Fire extinguishing installations and equipment on premises
Sprinklers	BS EN 12845:2004+A2:2009 BS 5306-0:2011 BS 9251:2014
Legionella Prevention	ACOP L8 Legionnaires Disease Approved Code of Practice HSG 274 – Legionnaires Disease, Technical Guidance
Fire Doors	BS 8214 Code of practice for fire door assemblies
Fire Dampers	Building Engineering Services Association (BESA) DW144 Building Engineering Services Association (BESA) DW145. Titled: Guide to good practice for the installation of fire and smoke dampers Building Engineering Services Association (BESA) Technical Bulletin VH001 Version 3 August 2022. Titled: Fire and fire smoke dampers maintenance

Item	Act
Passive Fire Protection	Guidance from ASFP Coloured books publications such as 'Red Book' entitled 'Fire stopping: Linear joint seals, penetration seals and small cavity barriers' ASFP Advisory Notes
Lighting	CIBSE Lighting Guides HSG 132 How to deal with sick building syndrome
Emergency Lighting	BS 5266 Code of Practice for emergency lighting of premises
COSHH Assessment	HSG 97 – A step by step guide to COSHH assessment by the HSE
Duct Work Cleaning	Building Engineering Services Association (BESA) TR 19. Guide to good practice for the internal cleanliness of ventilation systems
Close Loop Pipework Systems	BISRA BG 50 – Water Treatment of Closed Heating and Cooling Systems
Lightning Protection	BS 6651 (1999) Code of Practice for protection of structures against lightning
Gas Systems	HSE L56 ACOP – Safety in the installation and use of gas systems

Appendix C Asset Condition Classification Guidance

7.0 NHS Condition Ranking Indicators

- The following tables are not intended to be exhaustive, particularly in respect of quoted guidance, but are intended to demonstrate the range of parameters that should be considered. All references to guidance/legislation/British Standards must be compared to those current at the time of the survey. Latest published guidance always takes precedence.
- The tables do not include indicators for rank 'A'. This is because rank 'A' is as new or a recent upgrade.

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
1. Structure	Foundations	<ul style="list-style-type: none"> – No defect 	<ul style="list-style-type: none"> – Partial subsidence noted – Major cost implications 	<ul style="list-style-type: none"> – Significant subsidence noted – Replacement is the only option – Substantial/significant cost implications
	Walls	<ul style="list-style-type: none"> – Minimal deterioration of brickwork – Shrinkage cracks to bricks, not substantial, generally surface cracks or with minimal impact – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Flaking/crumbling brickwork and showing significant signs of deterioration – Extended areas of cracking either to brickwork directly or following mortar joints – Walls pulling away, internal evidence showing, extensive cracking noted and/or floors dropping – Major cost implications 	<ul style="list-style-type: none"> – Brickwork failed – Walls bulging/leaning and/or unstable – Extensive areas of cracking either to brickwork directly or following mortar joints – Significant evidence of walls pulling away, internal evidence showing, significant cracking noted and/or floors dropping – Substantial/significant cost implications
	Frames	<ul style="list-style-type: none"> – No distortion defect – Minimal insect infestation – Some minor repairs may be required – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Frame distortion noted – Insect infestation severe – Timber rot/corrosion evident in many areas – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/frame distortion/major rot/corrosion – Inadequate frame design – Significant safety concerns – Replacement is the only option – Substantial/significant cost implications
	Floors	<ul style="list-style-type: none"> – No distortion defect – Minimal insect infestation – Some minor repairs may be required – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Floor distortion noted/bowing of floor joists – Floor plates corroded/distorted – Insect infestation severe – Timber rot/corrosion evident in many areas – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/distortion/major rot/corrosion – Inadequate frame design – Significant safety concerns – Replacement is the only option – Substantial/significant cost implications

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D	
		Indicators	Indicators	Indicators	
1. Structure <i>continued</i>	Roofs	<ul style="list-style-type: none"> – No distortion defect – Minimal insect infestation – Some minor repairs may be required – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Frame distortion noted – Bowing of roof timbers – Insect infestation severe – Timber rot/corrosion evident in many areas – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/frame distortion/major rot/corrosion – Inadequate frame design – Significant safety concerns – Replacement is the only option – Substantial/significant cost implications 	
	2. External fabric	Walls and finishes	<ul style="list-style-type: none"> – Minimal deterioration brickwork, rendering sound – Pointing good or minimal improvement required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Rendering loose and cracked – Extended areas of pointing required – Major cost implications 	<ul style="list-style-type: none"> – Brickwork finishes failed – Significant areas of rendering loose/cracked/missing – Substantial/significant cost implications
		Windows	<ul style="list-style-type: none"> – Minimal deterioration, seals and mechanisms in good order – Some minor repairs may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Frame and mechanisms showing obvious signs of fatigue – Rot/corrosion evident in many areas – Timber cracking and breaking up – Patch repairs becoming untenable – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/major rot/corrosion – Significant safety concerns – Replacement is the only option – Major cost implications
	Doors	<ul style="list-style-type: none"> – Minimal deterioration, seals and mechanisms in good order – Some minor repairs may be required – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Door and mechanisms showing obvious signs of fatigue – Physical impact/damage obvious – Rot evident or door stiles weak – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/major rot – Significant safety concerns – Replacement is the only option – Major cost implications 	

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
2. External fabric <i>continued</i>	External timber/PVCu detail	<ul style="list-style-type: none"> – Minimal deterioration – Some minor repairs may be required – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Showing obvious signs of fatigue/damage – Rot/cracking evident – Missing sections – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/major rot/damage – Significant safety concerns – Replacement is the only option – Major cost implications
	Decoration	<ul style="list-style-type: none"> – Recent décor within last six months 	<ul style="list-style-type: none"> – Wear and tear obvious 	<ul style="list-style-type: none"> – Significant peeling of paint/coatings or missing finish. Grubby wall finishes
3. Roofs	Coverings – pitch	<ul style="list-style-type: none"> – Minimal deterioration. Slates/tiles generally all securely fixed – Cement pointing good and no improvement required – Sarking felt in good condition – “Torching” mortar behind the slates in good condition – No indications of damp patches – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Roof leaks apparent – Cracked/loose/slipped slates/tiles – Tile fatigue beginning. Moderate safety concerns – Ridge tiles loose/missing – Gable edge cement finishes loose/cracked/missing – “Torching” mortar behind the slates crumbling – Sarking felt torn and deteriorating – Major cost implications 	<ul style="list-style-type: none"> – Serious level of roof leaks apparent – Significant cracked/loose/slipped/missing slates/tiles – Tile fatigue evident. Serious safety concerns – Ridge tiles loose/missing – Gable edge cement finishes loose/cracked/missing – “Torching” mortar behind the slates mostly missing – Sarking felt rotten – Replacement or removal/reinstatement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
3. Roofs <i>continued</i>	Coverings – flat	<ul style="list-style-type: none"> – Minimal deterioration – Some minor repairs to rectify bubbles etc may be required – Reflective finish in place – Good provision of chippings to built-up felt roofs – Any defects repaired so as to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Roof leaks apparent – Cracking evident to roofing material – Increased level of bubbling to roofing material – Significant pooling of surface water – Bitumastic showing signs of breaking down – Recoating of reflective finish required – Provision of chippings to built-up felt roofs sparse – Built-up felt edging lifting – Major cost implications 	<ul style="list-style-type: none"> – Serious level of roof leaks apparent – Significant level of cracking evident to roofing material – Significant level of bubbling to roofing material – Badly distorted surface – Bitumastic broken down – Reflective finish worn completely away – No provision of chippings to built-up felt roofs – Built-up felt edging lifting – Replacement is the only option – Major cost implications
	Roof lights	<ul style="list-style-type: none"> – Minimal deterioration. Seals and any opening mechanisms in good order – Any defects repaired so as to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Cracked or broken glazing – Partly discoloured/warped polycarbonate – Leaks at joints apparent – Major cost implications 	<ul style="list-style-type: none"> – Cracked or broken glazing – Blackened/discoloured/warped polycarbonate – Leaks at joints apparent – Replacement is the only option – Major cost implications
	Rain water goods	<ul style="list-style-type: none"> – Minimal deterioration – Some minor repairs may be required – Any defects repaired so as to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Showing obvious signs of fatigue – Joints leaking – Mountings starting to fail – Broken/missing sections – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/missing sections – Joints failed – Mountings failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
4. Internal fabric and fixtures	Walls and finishes	<ul style="list-style-type: none"> – Minimal deterioration. Plaster and other finishes sound but minor repairs may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Plaster and other finishes starting to fail. Bonding of finish loose – Some areas of bulging plasterwork – Wall cracks significant – Major cost implications 	<ul style="list-style-type: none"> – Large areas of sub-standard finish – Bulging plasterwork – Wall cracks severe – Replacement is the only option – Major cost implications
	Ceilings	<ul style="list-style-type: none"> – Minimal deterioration. Plaster and other finishes sound – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Plaster and other finishes starting to fail. Bonding of finish loose – Some areas of bulging plasterwork – Ceiling cracks significant – Major cost implications 	<ul style="list-style-type: none"> – Large areas of sub-standard finish – Bulging plasterwork – Ceiling cracks severe – Replacement is the only option – Major cost implications
	Suspended ceilings Be aware of possible asbestos	<ul style="list-style-type: none"> – Minimal deterioration. Suspended tiles – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Suspended tiles starting to fail. Deformed tiles, broken edges – Over painted ceiling tiles – Major cost implications 	<ul style="list-style-type: none"> – Large areas failing. Deformed tiles, broken edges – Replacement is the only option – Major cost implications
	Floor coverings	<ul style="list-style-type: none"> – Minimal deterioration. Normal wear and tear – Some minor repairs may be required to joints etc – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Extensive wear either in patches or overall – Patch repair – Non-slip function very worn – Taped over cracks/loose finishes – Major cost implications 	<ul style="list-style-type: none"> – Significant failure – holes in floor coverings – Significant safety concerns. Non-slip function not evident – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
4. Internal fabric and fixtures <i>continued</i>	Doors	<ul style="list-style-type: none"> – Minimal deterioration – Some minor repairs may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Frame and/or door showing obvious signs of fatigue – Major cost implications 	<ul style="list-style-type: none"> – Significant failure – Replacement is the only option – Major cost implications
	Door furniture	<ul style="list-style-type: none"> – Door furniture of good standard 	<ul style="list-style-type: none"> – Door furniture failing or failed in parts 	<ul style="list-style-type: none"> – Significant failure
	Unit furniture	<ul style="list-style-type: none"> – Doors and worktops and fitted cupboards etc have minimal wear and tear – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Doors and fitted cupboards etc in poor condition damaged and/or hinges worn and loose – Worktops worn and damaged – Units tired – Major cost implications 	<ul style="list-style-type: none"> – Significant damage to doors and fitted cupboards etc – Door hinges falling apart – Worktops worn and damaged – Units tired – Replacement is the only option – Major cost implications
	Decoration Average decoration life (internal) 5-7 years	<ul style="list-style-type: none"> – Recent décor within last six months 	<ul style="list-style-type: none"> – Wear and tear obvious 	<ul style="list-style-type: none"> – Significant peeling of paint/coatings or missing finish. Grubby/torn wall finishes

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
5. External building works	Drainage	<ul style="list-style-type: none"> – Minimal deterioration – No indication of system problems – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Manholes/culverts – flaking/ crumbling brickwork and showing signs of major deterioration – Corroded manhole frames – Collapsed sections giving rise to system problems – repeated jetting/ unblocking required – Tree root invasion – Internal drainage systems leaking and failing – Major cost implications 	<ul style="list-style-type: none"> – Failure of large sections of the drainage system – Significant tree root invasion – Substantial/significant cost implications
	Roads/car parks	<ul style="list-style-type: none"> – Minimal deterioration to surface finish – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Crumbling surface finish with potholes and severe damage to surface – Compressed stone finish badly distorted with heavy surface water pooling – Significant damage to kerbs and edgings – twisted/broken off or sunk – Major cost implications 	<ul style="list-style-type: none"> – Surface totally disintegrated – Severe and significant damage to kerbs and edgings – missing/ twisted/broken off or sunk – Major cost implications
	Paths/block/ paved areas	<ul style="list-style-type: none"> – Minimal deterioration to finished level – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Significant number of cracked/ broken paving slabs – Surface level distorted with raised/ sunk edges – Major cost implications 	<ul style="list-style-type: none"> – Severe and significant damage – cracked/broken paving slabs – Major cost implications

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
5. External building works <i>continued</i>	Tarmac areas	<ul style="list-style-type: none"> – Minimal deterioration to surface finish – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Severe damage to surface – crumbling surface finish with potholes – Compressed stone finish badly distorted with heavy surface water pooling – Significant damage to kerbs and edgings – twisted/broken off or sunk – Major cost implications 	<ul style="list-style-type: none"> – Surface totally disintegrated – Severe and significant damage to kerbs and edgings – missing/ twisted/broken off or sunk – Major cost implications
	Concrete areas	<ul style="list-style-type: none"> – Minimal deterioration to surface finish – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Crumbling surface finish with potholes and severe damage to surface – Compressed stone finish badly distorted with heavy surface water pooling – Significant damage to kerbs and edgings – twisted/broken off or sunk – Major cost implications 	<ul style="list-style-type: none"> – Surface totally disintegrated – Severe and significant damage to kerbs and edgings – missing/ twisted/broken off or sunk – Substantial/significant cost implications

Appendix C Asset Condition Classification Guidance

Building assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
5. External building works <i>continued</i>	Walls	<ul style="list-style-type: none"> – Walls and features have minimal defects – Some minor repairs may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Walls and features have flaking/crumbling brickwork and showing significant signs of deterioration – Patch repairs becoming untenable – Major cost implications 	<ul style="list-style-type: none"> – Walls and features/brickwork failed – Walls bulging/leaning and/or unstable – Significant areas of rendering loose/cracked/missing – Significant safety concerns – Major cost implications
	Fencing/gates (metal)	<ul style="list-style-type: none"> – Minimal deterioration – Some minor repairs may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Bent, damaged or rusty components – Sections missing or failing with some missing sections – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/corrosion – Significant safety concerns – Replacement is the only option – Major cost implications
	Fencing/gates (timber)	<ul style="list-style-type: none"> – Minimal deterioration – Some minor repairs may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Distorted installation – Large areas of rot evident – missing sections – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/major rot – Collapsed fencing – large sections missing – Significant safety concerns – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
6. Energy centre systems	Fuel supply/storage (Gas)	<ul style="list-style-type: none"> – Correctly installed (supports) – Minimal cost implications for minor repairs only – Test records on gas tightness up-to-date – Propane installation sound 	<ul style="list-style-type: none"> – Evidence of pipework corrosion – Pipework supports failing – Major cost implications – Serious evidence of corrosion to pipework/storage vessels 	<ul style="list-style-type: none"> – Severe/significance evidence of pipework corrosion – Replacement is the only option – Major cost implications
	Fuel supply/storage (Oil)	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Corrosion evident – Leaks at tank/joints or pipework connections – Major cost implications 	<ul style="list-style-type: none"> – Oil storage tank failed – Replacement is the only option – Major cost implications
	Energy distribution	<ul style="list-style-type: none"> – Good reliability record – Steam distribution meets good design practice – acceptable fall – Pipework hangers sound – Insulation effective – Minimal leaks at flanges/expansion joints/steam taps etc – Maintenance of components may be required (eg leaking valves etc) 	<ul style="list-style-type: none"> – Distribution design poor – fall questionable – Pipework hangers failing – loose and part ineffective – Significant leaks at flanges/expansion joints/steam taps etc – Evidence of extensive pipework corrosion/leaks – Major cost implications 	<ul style="list-style-type: none"> – Unsafe steam distribution with incorrect design and supports – Severe/significant leaks at flanges/expansion joints/steam taps etc – Replacement is the only option – Evidence of extensive pipework corrosion/leaks – Major cost implications
	Energy distribution – condensate systems	<ul style="list-style-type: none"> – Minimal leaks in condensate system – Minimal deterioration to condensate pumping sets – Mountings fixings and guards are secure and in place – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Significant leaks in condensate system – Condensate pumping sets leaking/poor reliability – Mountings fixings and guards insecure/inadequate – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Severe/significant leaks at flanges/expansion joints etc – Collapsed supports – Condensate pumping sets/receiver failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
6. Energy centre systems <i>continued</i>	Energy distribution – insulation	<ul style="list-style-type: none"> – Insulation in good order – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Insulation damaged/missing sections – Major cost implications 	<ul style="list-style-type: none"> – Insulation severely damaged or missing completely – Replacement is the only option – Major cost implications
	Boiler plant	<ul style="list-style-type: none"> – Good reliability record – Covers in place and components in working order – Service of plant noted – steam boiler inspection/water treatment information available – Maintenance of components may be required (eg leaking valves etc) – Mountings fixings and flue guards are secure and in place – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Records indicate inadequate water treatment etc – Covers in poor condition (dented or missing) – Insulation missing – Leaks to boiler section – Repeated problems with burners – Flue mounting fixings are not secure – evidence of corrosion noted – Flue guards are damaged or missing – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Records indicate inadequate water treatment etc – Significant boiler leaks – Significant safety concerns – high production of carbon monoxide. Burners corroded and difficult to maintain combustion conditions – Replacement is the only option – Controls/parts obsolete – Major cost implications
	Pressurisation plant	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Persistent failure – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Units failed – Major cost implications
	Boiler treatment plant (de-alk-de-gas plant, total dissolved solids and soft water control)	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Maintenance of components may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Inability to maintain adequate levels of treated water – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Unit failed. Cannot produce soft water – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
6. Energy centre systems <i>continued</i>	Calorifiers/heat exchangers	<ul style="list-style-type: none"> – Good reliability record – Maintenance of components may be required (eg leaking valves etc) – Mountings, fixings and guards/insulation is secure and in place – Complies with legionellae design guidance – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Mountings, fixings and guards/insulation not secure/missing – Persistent leaks – Non-compliance with legionellae design guidance, eg HTM 2040 'The control of legionellae in healthcare premises' – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Plant in very poor condition with missing covers/insulation etc – Repeated failure of heat exchanger bundle – Non-compliance with legionellae design guidance – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Domestic hot water – domestic type cylinders	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Persistent leaks – Non-compliance with legionellae design guidance 	<ul style="list-style-type: none"> – Very poor reliability record – Evidence of leaks – Major cost implications
	Domestic hot water – direct fired water heaters	<ul style="list-style-type: none"> – Good reliability record – Covers in place and components in working order – Service of plant noted – Maintenance of components may be required (eg leaking valves etc) – Mountings fixings and flue guards are secure and in place – Complies with legionellae design guidance – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Covers in poor condition (dented or missing) – Insulation missing – Leaks to water section – Repeated problems with burners – Flue mounting fixings are not secure – evidence of corrosion noted – Flue guards are damaged or missing – Non-compliance with legionellae design guidance – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Significant boiler leaks – Significant safety concerns – high production of carbon monoxide. Burners corroded and difficult to maintain combustion conditions – Controls/parts obsolete – Non-compliance with legionellae design guidance – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
6. Energy centre systems <i>continued</i>	Flues – separate	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Evidence of deterioration, corrosion, cracking of brickwork/stonework etc – Evidence of corrosion to base of chimney/flue – Gassing from base of chimney 	<ul style="list-style-type: none"> – Evidence of significant deterioration, corrosion, cracking of brickwork/stonework etc – Major cost implications
	Controls/Meter	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Maintenance of components may be required (eg motorised valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Controls on override – automatic control failed – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Total failure of control system – not operating within design parameters – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Generators	<ul style="list-style-type: none"> – Good reliability record – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Generator repeatedly failing – Not able to maintain rated output – Oil leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
7. Heating systems	Pipework	<ul style="list-style-type: none"> – Good reliability record – Maintenance of components may be required (eg leaking valves etc) – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Evidence of extensive pipework corrosion/leaks – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Evidence of major system leaks – Replacement is the only option – Major cost implications
	Heat emitters	<ul style="list-style-type: none"> – Good reliability record – Covers in place and components in working order – Fan convector noise levels within limits – Maintenance of components may be required (eg leaking valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Covers in poor condition (dented or missing) – Fan convector noise levels excessive – Evidence of corrosion to heating elements – Partial replacement of heat emitters/pipework – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Significant leakage – Replacement is the only option – Major cost implications
	Insulation	<ul style="list-style-type: none"> – Insulation in good order – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Insulation damaged/missing sections – Major cost implications 	<ul style="list-style-type: none"> – Insulation severely damaged or missing completely – Replacement is the only option – Major cost implications
	Heating pumps	<ul style="list-style-type: none"> – Good reliability record – Maintenance of pumps seals may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record. Motor windings failing (earth leakage) – Pumps leaks evident – Part failure of pumping sets 	<ul style="list-style-type: none"> – Very poor reliability record – Pump units failed/seized/leaking – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
8. Hot and cold water systems	Potable cold water tanks	<ul style="list-style-type: none"> – Minimal deterioration – Maintenance of components may be required (eg leaking valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only – Complies with legionellae design guidance, eg HTM 2040 	<ul style="list-style-type: none"> – Severe corrosion – Break-up of glass/reinforced plastic – Failure of lining – Leaks at tank/joints or pipework connections – Non-compliance with legionellae design guidance – Major cost implications 	<ul style="list-style-type: none"> – Water storage tank failed – Replacement is the only option – Major cost implications
	Domestic hot water header tanks	<ul style="list-style-type: none"> – Minimal deterioration – Maintenance of components may be required (eg leaking valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only – Complies with legionellae design guidance 	<ul style="list-style-type: none"> – Severe corrosion – Break-up of glass/reinforced plastic – Failure of lining – Leaks at tank/joints or pipework connections – Non-compliance with legionellae design guidance – Major cost implications 	<ul style="list-style-type: none"> – Water storage tank failed – Replacement is the only option – Major cost implications
	General header tanks	<ul style="list-style-type: none"> – Minimal deterioration – Maintenance of components may be required (eg leaking valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Severe corrosion – Break-up of glass/reinforced plastic – Failure of lining – Leaks at tank/joints or pipework connections – Major cost implications 	<ul style="list-style-type: none"> – Water storage tank failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
8. Hot and cold water systems <i>continued</i>	Water treatment plant	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Maintenance of components may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Inability to maintain adequate levels of soft water output – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Unit failed. Cannot produce soft water – Replacement is the only option – Major cost implications
	Hot and cold water distribution (local)	<ul style="list-style-type: none"> – Insulation effective – Correctly installed (supports) – Minimal leaks at flanges/expansion joints etc – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Significant evidence of pipework corrosion/leaks – Significant leaks at flanges/expansion joints etc – Pipework supports failing – Major cost implications 	<ul style="list-style-type: none"> – Severe/significant leaks to pipework – Replacement is the only option – Major cost implications
	Hot and cold water main distribution (site)	<ul style="list-style-type: none"> – Distribution within grounds sub-surface – minimal deterioration to valve/meter chambers – Distribution within duct system – insulation in place and sound – Some minor repairs may be required – Temperature of environment within recommended legionellae guidelines, eg HTM 2040 – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Distribution within sub-surface – major deterioration to valve/meter chambers – Distribution within duct system – insulation missing/damaged/not adequate for environment – Pipework corroding/valves encrusted/problems with repeated system leaks – Temperature of environment in excess of recommended legionellae guidelines – Major cost implications 	<ul style="list-style-type: none"> – Significant failure/pipework severe corrosion/valves encrusted significant system leaks – Distribution within duct system – insulation completely missing – Significant safety concerns – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
8. Hot and cold water systems <i>continued</i>	Pumps	<ul style="list-style-type: none"> – Good reliability record – Maintenance of pumps seals may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – motor windings failing (earth leakage) – Pumps leaking significantly – Parts difficult to obtain or obsolete – Part failure of pumping sets 	<ul style="list-style-type: none"> – Very poor reliability record – Pump units failed/seized/leaking – Replacement is the only option – Major cost implications
	Sanitary ware/fittings	<ul style="list-style-type: none"> – Minimal damaged or faulty fittings – Draw off points generally good shut-off – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Damaged or faulty fittings – Plastic cisterns tired and worn – External staining from overflows – Draw off points generally poor shut-off – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Broken fittings – Extensive failure of draw-off points – Parts obsolete – Replacement is the only option – Major cost implications
	Insulation	<ul style="list-style-type: none"> – Insulation in good order – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Insulation damaged/missing sections – Major cost implications 	<ul style="list-style-type: none"> – Insulation severely damaged or missing completely – Replacement is the only option – Major cost implications
	Ancillary equipment – valves/controls	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Maintenance of components may be required (eg motorised valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Controls on override – automatic control failed – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Total failure of control system – Controls/parts obsolete – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
9. Ventilation systems	Ventilation plant	<ul style="list-style-type: none"> – Good plant reliability record – Mountings fixings/guards are secure – Access door/seals acceptable – Maintenance of components may be required (eg drainage traps/leaking valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Noisy fan units – Mounting fixings failing (anti-vibration mountings etc) – Access door/seals failed – Drainage traps failed/inadequate design – Evidence of corrosion noted to plant – Air filter units failing (obvious pass-through) – Humidification system failed – Significant leaks to heating/cooling systems – Parts difficult to obtain or obsolete – Does not comply with legionellae design guidance, eg HTM 2040 – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Significant safety concerns – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Distribution	<ul style="list-style-type: none"> – Covers in place – Access doors securely in place – Air terminal grilles in place and in good order – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Covers in place – Access doors poor fitting/missing – Air terminal grilles worn and damaged/corroded – Missing air terminal grilles – Ductwork pitted/leaking – Aluminium ductwork breaking down – Steel ductwork corroding – Major cost implications 	<ul style="list-style-type: none"> – Ductwork/system/air terminals very poor condition – damaged/missing parts/covers/terminals – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
9. Ventilation systems <i>continued</i>	Room split chillers/compressors	<ul style="list-style-type: none"> – Good plant reliability record – Mountings fixings/guards are secure – Minimal vibration – Maintenance of components may be required (eg leaking chilled water valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Unable to maintain set temperatures – Mounting fixings failing (eg anti-vibration mountings etc) – Persistent oil leaks – Significant leaks to chilled water cooling systems – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – General plant failure – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Chillers/cooling systems	<ul style="list-style-type: none"> – Good plant reliability record – Mountings fixings/guards are secure – Access door/seals acceptable – Water spray systems functioning correctly – Chemical dosing equipment operating correctly – Maintenance of components may be required (leaking chilled water valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Significant evidence of deterioration/corrosion – Access door/seals failing – Water spray systems corroding and inefficient – Repeated failure to maintain biocide levels at specified limits – Chemical dosing equipment failing – Significant leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Severe corrosion/deterioration – General plant failure – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Controls	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Maintenance of components may be required (eg motorised valves etc) – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Controls on override – automatic control failed – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Total failure of control system – Controls/parts obsolete – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
9. Ventilation systems <i>continued</i>	Insulation	<ul style="list-style-type: none"> – Insulation in good order – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Insulation damaged/missing sections – Major cost implications 	<ul style="list-style-type: none"> – Insulation severely damaged or missing completely – Replacement is the only option – Major cost implications
10. Medical gas pipeline systems	Vacuum insulated evaporator (VIE)	<ul style="list-style-type: none"> – Installation to HTM 2022 ‘Medical gas pipeline systems’ – Mountings/fixings etc are secure and in place – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Installation not to HTM 2022 – Failure of bursting disc – Failure of vaporiser – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Installation inappropriate for use – Replacement is the only option – Repeated failure of vaporiser – Significant cost implications
	Distribution	<ul style="list-style-type: none"> – Installation to HTM 2022 – Mountings/fixings etc are secure and in place – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Installation not to HTM 2022 – Pipework installation badly distorted – Persistent leaks at valve units – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Installation inappropriate for use – Replacement is the only option – Major cost implications
	Manifolds	<ul style="list-style-type: none"> – Good plant reliability record – Any defects repaired to provide continued life as new – Cylinder mounts provided with safety chains – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Tailpipes – repeated failure – Changeover valves controls – repeated failure – Persistent leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – General plant failure – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Outlets	<ul style="list-style-type: none"> – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Persistent leaks at outlets – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Persistent leaks at outlets – Controls/parts obsolete – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
10. Medical gas pipeline systems <i>continued</i>	Alarm systems	<ul style="list-style-type: none"> – Effective operation – Maintenance of components may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Alarm system repeated failure – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Total failure of alarm system – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Medical air compressors	<ul style="list-style-type: none"> – Good plant reliability record – Mountings fixings/guards are secure – Minimal vibration – Maintenance of components may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Unable to maintain set pressures – Mounting fixings failing (anti-vibration mountings etc) – Persistent oil leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – General plant failure – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Vacuum pumps	<ul style="list-style-type: none"> – Good plant reliability record – Mountings fixings/guards are secure – Minimal vibration – Maintenance of components may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Unable to maintain set vacuum – Mounting fixings failing (anti-vibration mountings etc) – Persistent oil leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – General plant failure – Controls/parts obsolete – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
11. Lifts and hoists	Passenger	<ul style="list-style-type: none"> – Installed to current guidance – Good plant reliability record <p>Car</p> <ul style="list-style-type: none"> – Minimal deterioration/damage – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only <p>Drive/controls</p> <ul style="list-style-type: none"> – Minimal deterioration/damage – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record <p>Car</p> <ul style="list-style-type: none"> – Significant wear and tear – Door mechanism slack/badly worn – Safety gate mechanism badly worn <p>Drive/controls</p> <ul style="list-style-type: none"> – Poor reliability record – Frequent breakdowns – Persistent oil leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Significant safety concerns – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Goods	<ul style="list-style-type: none"> – Good plant reliability record <p>Car</p> <ul style="list-style-type: none"> – Minimal deterioration/damage – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only <p>Drive/controls</p> <ul style="list-style-type: none"> – Minimal deterioration/damage – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record <p>Car</p> <ul style="list-style-type: none"> – Significant wear and tear – Door mechanism slack/badly worn – Safety gate mechanism badly worn <p>Drive/controls</p> <ul style="list-style-type: none"> – Poor reliability record – Frequent breakdowns – Persistent oil leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Significant safety concerns – Controls/parts obsolete – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
11. Lifts and hoists <i>continued</i>	Hoists	<ul style="list-style-type: none"> – Good plant reliability record Car <ul style="list-style-type: none"> – Minimal deterioration/damage – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only Drive/controls <ul style="list-style-type: none"> – Minimal deterioration/damage – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record Car <ul style="list-style-type: none"> – Significant wear and tear – Door mechanism slack/badly worn – Safety gate mechanism badly worn Drive/controls <ul style="list-style-type: none"> – Poor reliability record – Frequent breakdowns – Persistent oil leaks – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Significant safety concerns – Controls/parts obsolete – Replacement is the only option – Major cost implications
	Control panel	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Repeated control failure – Parts difficult to obtain or obsolete – Poor electrical safety – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Total failure of control system – Controls/parts obsolete – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
12. Fixed plant and equipment	Sterilizers	<ul style="list-style-type: none"> – Good reliability record – Covers in place and equipment in good working order – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Repeated difficulty in meeting test requirements as detailed in current published guidance, eg HTM 2010 'Sterilization' – Covers in poor condition (dented or missing) – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Substantial/significant cost implications
	Bedpan disposal	<ul style="list-style-type: none"> – Good reliability record – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Repeated difficulty in meeting test requirements as detailed in current published guidance, eg HTM 2030 'Washer-disinfectors' (not macerators) – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications
	Disinfection equipment	<ul style="list-style-type: none"> – Good reliability record – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Repeated difficulty in meeting test requirements as detailed in current published guidance, eg HTM 2030 – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
12. Fixed plant and equipment <i>continued</i>	Catering equipment	<ul style="list-style-type: none"> – Good reliability record – Covers in place and equipment in good working order – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Covers in poor condition (dented or missing) – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications
	Laundry equipment	<ul style="list-style-type: none"> – Good reliability record – Covers in place and equipment in good working order – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Covers in poor condition (dented or missing) – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications
	Miscellaneous equipment – body fridge	<ul style="list-style-type: none"> – Good reliability record – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications
	Miscellaneous equipment – water heaters	<ul style="list-style-type: none"> – Good reliability record – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Repeated difficulty in meeting test requirements as detailed in current published guidance, eg HTM 2027 ‘Hot and cold water supply, storage and mains services’ – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
13. Electrical systems	Wiring systems	<ul style="list-style-type: none"> – Installation to BS 7671/HTM 2020 ‘Electrical safety code for low voltage systems’ – Electrical installation test records available – Evidence of bonding (non- invasive observation – usually beneath hand-wash basin) – Socket-outlets and light switches in good order – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Installation not fully in accordance with BS 7671/HTM 2020 – Electrical installation test records not available – Mixture of wiring systems, PVC singles, twin and earth, mineral insulated copper conductor etc – Inadequate cable protection – overcrowding/poor fixings – Bonding erratic – Major cost implications 	<ul style="list-style-type: none"> – Installation not in accordance with BS 7671/HTM 2020 – Electrical installation test records not available – No bonding – Major cost implications
	Wiring systems/ bonding	<ul style="list-style-type: none"> – Installation to BS 7671 – Electrical installation test records available – Evidence of bonding (non- invasive observation – usually beneath hand-wash basin) – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Installation not fully in accordance with BS 7671 – Electrical installation test records not available – Bonding erratic – Major cost implications 	<ul style="list-style-type: none"> – Installation not in accordance with BS 7671 – Electrical installation test records not available – No bonding – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
13. Electrical systems <i>continued</i>	Distribution boards	<ul style="list-style-type: none"> – Installation to BS 7671 – Lockable provision – Circuit schedules up-to-date and posted – Electrical installation test records available – Adequate signs and signals – Evidence of bonding (non- invasive observation) – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Installation not fully in accordance with BS 7671 – Inadequate barriers – Distribution boards not lockable – Circuit schedules out-of- date/ missing – Electrical installation test records not available – Inadequate signs and signals – No evidence of bonding (non- invasive observation) – Major cost implications 	<ul style="list-style-type: none"> – Installation not in accordance with BS 7671 – Electrical installation test records not available – Major cost implications
	Switchgear	<ul style="list-style-type: none"> – Installation to BS 7671 – Lockable provision – Circuit schedules up-to-date and posted – Electrical installation test records available – Adequate signs and signals – Evidence of bonding (non- invasive observation) – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Installation not fully in accordance with BS 7671 – Inadequate barriers – Switches not lockable – Circuit schedules out-of- date/ missing – Electrical installation test records not available – Inadequate signs and signals – No evidence of bonding (non- invasive observation) – Major cost implications 	<ul style="list-style-type: none"> – Installation not in accordance with BS 7671 – Electrical installation test records not available – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
13. Electrical systems <i>continued</i>	Luminaires - internal	<ul style="list-style-type: none"> – Installation to BS 7671 – Electrical installation test records available – Minimal deterioration – Luminaire diffusers in place and not discoloured – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Luminaires failing with replacements noted over time – Luminaire diffusers part missing/ discoloured – Controls/parts difficult to obtain or obsolete – Inadequate test records – Major cost implications 	<ul style="list-style-type: none"> – Luminaires diffusers missing/ discoloured/damaged – Luminaires generally failed with replacements over time – Replacement is the only option – Controls obsolete – Components not available – Major cost implications
	Luminaires - external	<ul style="list-style-type: none"> – Installation to BS 7671 – Electrical installation test records available – Adequate signs and signals – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Luminaires failing with replacements noted over time – Luminaire diffusers part missing/ discoloured – Controls/parts difficult to obtain or obsolete – Inadequate test records – Major cost implications 	<ul style="list-style-type: none"> – Luminaires diffusers missing/ discoloured/damaged – Luminaires generally failed with replacements over time – Replacement is the only option – Controls obsolete – Components not available – Major cost implications
	Luminaires - emergency	<ul style="list-style-type: none"> – Installation to BS 5266-1 – Operating within design parameters – Test records available – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Still operating within design parameters but high maintenance requirements – Luminaires starting to fail – Diffusers discoloured – Controls/parts difficult to obtain or obsolete – Inadequate test records – Major cost implications 	<ul style="list-style-type: none"> – Luminaires failed – Controls obsolete – Components not available – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
13. Electrical systems <i>continued</i>	Lightning protection	<ul style="list-style-type: none"> – Installation to BS 6651 – Test records available – Adequate earth resistance path 	<ul style="list-style-type: none"> – Poor reliability record – Corrosion evident at joints – Inadequate earth resistance path – Inadequate test records – Major cost implications 	<ul style="list-style-type: none"> – System failed – not able to offer adequate protection in line with BS 6651 – Major cost implications
14. Alarms and detection systems	Fire alarm wiring system See 'Fire safety' elements for non-compliance to mandatory fire safety requirements	<ul style="list-style-type: none"> – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Repeated faults to wiring systems – Poor reliability record – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications
	Security systems and other alarm systems	<ul style="list-style-type: none"> – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Repeated faults to wiring systems – Poor reliability record – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
15. Communication systems <i>continued</i>	Telephone systems	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications
	Data transmission	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications
	Paging systems	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications
	Nurse call systems	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications
	Radio and television systems	<ul style="list-style-type: none"> – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
15. Communication systems <i>continued</i>	Building management system – distribution network	<ul style="list-style-type: none"> – Good reliability record – Minimal deterioration – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Connections/terminations/joints repeatedly failing – Cable supports/tray collapsing/corroding – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Wiring failed – Equipment failed – Replacement is the only option – Major cost implications
	Building management system – head end control	<ul style="list-style-type: none"> – Good reliability record – Any defects repaired as on-going maintenance to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications
	Building management system – zone control panels (outstations)	<ul style="list-style-type: none"> – Good reliability record – Minimal deterioration – Any defects repaired as on-going maintenance to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications

Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
16. Miscellaneous	Wet and dry risers	<ul style="list-style-type: none"> – Systems well maintained (good records) – Minimal leaks at valves etc – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Persistent leaks to valves/joints 	<ul style="list-style-type: none"> – Very poor reliability record – Failure of valves – seized, corroded valves – Pipework joints leaking – Replacement is the only option – Major cost implications
	Hydrotherapy pool	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Maintenance of components may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Parts difficult to obtain or obsolete – Surface finish of pool – damaged/cracked/broken tiles – unacceptable standards – Heat exchanger unable to maintain pool temperatures – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Surface finish of pool – extensive damaged/cracked/broken tiles – Heat exchanger failed – Replacement is the only option – Major cost implications
	Hydrotherapy pool water treatment	<ul style="list-style-type: none"> – Good reliability record – Effective operation – Maintenance of components may be required – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Backwash system ineffective – Difficulty in providing consistent water quality in line with variable bathing load – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Backwash system failed – Unable to provide adequate water quality in line with variable bathing load – Replacement is the only option – Major cost implications

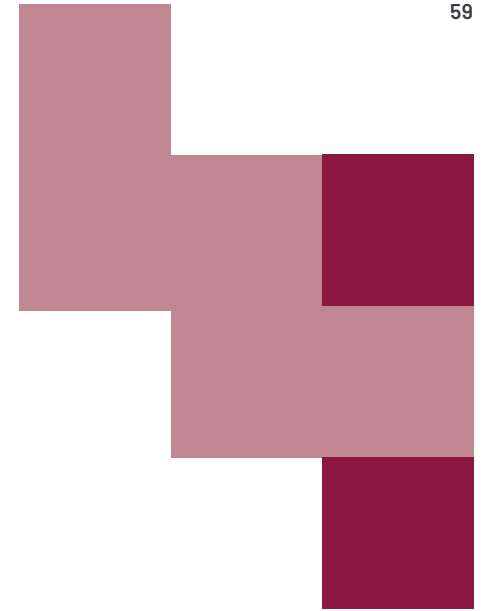
Appendix C Asset Condition Classification Guidance

Engineering assets – what to look for?

Element	Sub-element	Condition B	Condition C	Condition D
		Indicators	Indicators	Indicators
16. Miscellaneous <i>continued</i>	Industrial gas systems (pathology laboratory etc)	<ul style="list-style-type: none"> – Good reliability record – Pipework distribution meets good design practice – Manifolds well maintained – effective records – Pipework hangers sound – Maintenance of components may be required (eg leaking valves etc) 	<ul style="list-style-type: none"> – Distribution design poor – Pipework hangers failing – loose and part ineffective – Manifolds worn repeated failures – Evidence of extensive pipework corrosion/leaks – Major cost implications 	<ul style="list-style-type: none"> – Distribution design inadequate – Pipework hangers failed – Replacement is the only option – Repeated failure of system – Major cost implications
	Miscellaneous equipment	<ul style="list-style-type: none"> – Good reliability record – Covers in place and equipment in good working order – Minimal deterioration – Any defects repaired to provide continued life as new – Minimal cost implications for minor repairs only 	<ul style="list-style-type: none"> – Poor reliability record – Equipment repeatedly failing – Covers in poor condition (dented or missing) – Parts difficult to obtain or obsolete – Major cost implications 	<ul style="list-style-type: none"> – Very poor reliability record – Equipment failed – Replacement is the only option – Major cost implications

Appendix D

Deed of Implementation



Appendix D Deed of Implementation

The Deed of Implementation will be included in due course.



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