NHS National Services Scotland

Property Appraisal Guidance for NHSScotland

A risk based methodology for property appraisal

Health Facilities Scotland
Property and Capital Planning

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Introduction

It is essential that the condition and performance of the NHS estate as an asset is assessed and maintained to ensure it is fit for purpose and safe for patients and staff. This document provides an overview of a suggested methodology for carrying out a property appraisal of the estate.

A significant outcome of applying this methodology is to enable a consistent approach to determining the quality of estate assets. This supports good asset management and should form part of the baseline position for development of a Property and Asset Management Strategy (PAMS) and supplementary Estate Investment Plans.

The methodology is founded on the following principles:

- a consistent approach to data collection on the condition and performance of the estate;
- establishment of costs to rectify any deficiencies in the condition and performance of the estate;
- risk profiling of those deficiencies to support effective prioritisation of investments;
- electronic storage of information to allow robust data management and interrogation of information;
- reporting of findings in a logical and consistent manner to inform strategic investment decisions;
- ongoing performance monitoring set against agreed targets;
- development of improvement plans that fit alongside the organisation's PAMS.

Whilst the methodology set out in this document is specific to the estate as an asset, the above principles can be used for the appraisal of an organisation's other assets. A common and consistent approach and methodology is therefore recommended for all asset groups wherever possible.

1. The Property Appraisal Process

Developing the Scope of the Appraisal

Preparing a Property Asset Register

The first step in preparation for a property appraisal exercise is to fully understand the extent of the property portfolio involved. To do this, a full property register is required that outlines all premises currently used in the support and delivery of healthcare, irrespective of ownership, including premises that are temporarily vacant but are due to be brought back into healthcare use.

For ease of organisation and analysis of information, it is useful to split the property portfolio into different groups/ categories; such as the following list:

- hospital buildings (and other inpatient accommodation);
- health centres and clinics;
- offices and other miscellaneous properties;
- 3rd party healthcare provider properties (GPs, pharmacy, optometry, dental, etc);
- other healthcare provider accommodation i.e. space within Local Authority or other organisation's properties.

This information can form the start of a Property Asset Register.

Further information that needs to be added to the Property Asset Register includes:

- address and contact details for each property;
- size of each property (or the space occupied for the support or delivery of healthcare);
- service provider and services provided.

The first two items in the above list are critical information for developing the scope of the property appraisal exercise. The third item in the list is important baseline information for the PAMS. The property appraisal exercise does not have to be delayed whilst this last item is collected but it will be required by the end of the process.

The property appraisal exercise does not include other assets such as portable equipment, loose furniture and fittings, Information Management and Technology (IM&T) and communication equipment, or transport vehicles

While the principles of information collection and assessment described in this guidance may be similar for these assets, separate asset registers and appraisal processes will be need to be followed.

Sub-dividing large Properties

Where large sites/properties are included in the property asset register, and are to be included within the appraisal exercise, they may need to be sub-divided into more manageable blocks to enable more meaningful information to be obtained from them.

For example, a large hospital building may be in a very different condition in different parts of the property. Splitting the property into blocks will allow different information to be recorded against each of those blocks.

The sub-division of a large property can be in the form of different floors, departments, or other distinguishable zones. The division of a large property into departmental areas allows the assessment of physical condition and functional suitability to match the same area.

The approach to assessment of physical condition will alter slightly for those properties that have been sub-divided into smaller areas, as each blocks will have shared building attributes e.g. roof, floor, external walls, etc. This is described in more detail in the description of the physical condition facet.

Deciding on which Properties to include in the Appraisal

Once the property asset register is substantially complete the next step is to decide which of the properties on the register need to be appraised.

This decision may be affected by any of the following reasons:

- limited availability of resources to carry out a full appraisal;
- limited timescale for carrying out the appraisal;
- the level of information already available for a property;
- the benefits of, or need to carry out an appraisal of a property, particularly of those not a direct responsibility of the organisation i.e. 3rd party healthcare providers;
- a property may no longer be used for the support or delivery of healthcare – such properties should be identified on the organisation's disposal register.

Deciding on the level of detail required from the Appraisal

Prior to commencement of a property appraisal it is important to understand the reason for carrying it out. This will help to inform the decision on the level of detail required from the appraisal.

The main aim of a property appraisal should be to enable strategic decisions to be made on the future management, development and performance of the estate and form part of the baseline position for the PAMS.

For some properties that are not at the forefront of intentions for the PAMS plan then high level information about those properties may be sufficient, whereas this level of information may be insufficient and inappropriate when important strategic decisions need to be made.

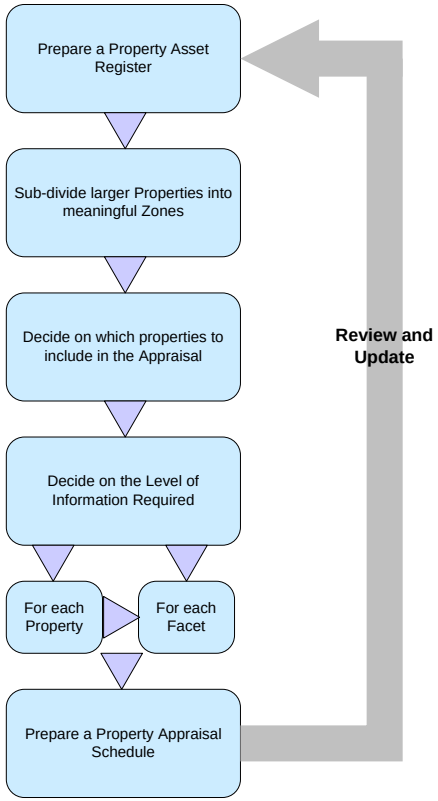
Three categories of information are suggested that describe the level of detail that the property appraisal should seek to provide. Further information is provided alongside the description of each appraisal facet, but these levels of information can generally be described as follows:

- Level 1 – high level/anecdotal information that can be obtained from short interviews with key personnel;
- Level 2 – on-site assessments following the estate appraisal process;
- Level 3 – more detailed assessment than level 2 where the increased information is also used for detailed operational management of that property.

Where existing information is available it needs to be comparable with Level 2 information for it to be suitable in informing the baseline position for a PAMS plan.

Summarising the Scope of the Property Appraisal Exercise

The process that has just been described in defining the scope of the property appraisal exercise is summarised in the following diagram:



A Property Appraisal Schedule

The following outlines a typical property appraisal schedule that can be used to inform the appraisal process on which properties are to be included and to what level of detail that should be carried out.

Property Type	Property Name	Address	Contact Details	Department	Area	Level of Appraisal Required*				
						All Facets	Physical Condition	Functional Suitability	Space Utilisation	Quality
Hospital	NHS Hospital	Random Street, Anywhere	Mr Smith Tel 0011333999	Department aaa	500	2				
Hospital	NHS Hospital	Random Street, Anywhere	Mr Jones Tel 0011333111	Department bbb	650	2				
Hospital	NHS Hospital	Random Street, Anywhere	Mrs Brown Tel 0011333444	Department ccc	1,000	2				
Hospital	NHS Hospital	Random Street, Anywhere	Ms Black Tel 0011333555	Department ddd	250	2				
Clinic	Local Clinic	High Street, Anywhere	Mr Grey Tel 0011 222333	Local Clinic	400	2				
Office	Headquarters	Low Street, Anywhere	Miss White	HQ	1,000	2				
GP Practice	Local GP	Town Street, Anywhere	Mr Who	GP Practice	500		2	2	N	N
Dental	Local Dentist	Tooth Street, Anywhere	Mr Drill	Dentist	200		1	1	N	N

*** 1 = Level 1 information, 2 = Level 2 information, 3 = Level 3 information, N = Not required**

Information such as the service provider, services provided and property ownership could be added to the above table to form the beginnings of a Property Asset Register.

The Six Facet Approach

The property appraisal should be undertaken on the basis of six facets, which are:

- physical condition;
- statutory compliance;
- environmental management;
- space utilisation;
- functional suitability;
- quality.

These are described in more detail in the next section.

Each property/department will be assigned a rank (where appropriate) to identify its overall condition/performance. The process for ranking is slightly different for each facet and may also be dependant upon how larger properties have been subdivided in the Property Appraisal Schedule. Reference should be made to the description of each facet for more details.

Only four of the six facets require that a ranking is assigned to a property/department. These are physical condition, space utilisation, functional suitability and quality.

A cost should be applied for the rectification of physical condition and statutory compliance (including fire and health & safety issues). This constitutes the backlog maintenance cost which is described in more detail later in this guidance.

On-site Appraisals

The final stage in preparing for the property appraisal exercise is the preparation needed for surveyors to attend site to carry out the appraisal.

The time on-site and amount of disruption caused by the appraisal will be dependant upon the level of appraisal to be carried out.

The following is a useful checklist aimed at minimising access problems to properties and disruption to service staff and users:

	Yes/ No/ N/a
Have department managers been pre-warned of the appraisal process?	
Have access arrangements been agreed, including appointments where necessary?	
Have security badges and/or letters of authority been issued to surveyors to aid identification and authorisation to access?	
Has access to plant rooms been arranged?	
Have interviews been arranged with key estates staff to transfer their knowledge of the estate into the process?	
Are interviews required, and arranged, with department managers to transfer their knowledge of departments?	

Facet 1: Physical Condition

Description/definition

The appraisal of physical condition looks at the condition of the individual building and engineering elements of a property to ascertain its overall condition.

There are 20 individual building and engineering elements, each with a series of sub-elements (List of Elements and Sub-Elements). The number and scope of the sub-elements will be dependent upon the type of property being appraised.

For appraisal purposes a property can be split into 4 constituent parts:

- the building envelope;
- engineering services;
- internal elements;
- external area.

The condition of a property's building envelope should be assessed for the whole building.

Engineering services should be assessed on a system basis and therefore reported at a building level (for large hospital sites the engineering infrastructure services should be appraised separately for the whole site).

Internal elements should be appraised on a blocks/ departmental level.

For small to medium sized properties there is only likely to be one block/department per building, therefore, each of the 3 constituent parts of the appraisal can be assessed for the whole building.

For larger properties that have been sub-divided into smaller block/departments, there are likely to be several departments within a single building. In these instances, the building envelope and engineering services should be assessed for the whole building whereas the internal elements should be assessed for each department

Levels of Appraisal

The three possible levels of detail that the physical condition appraisal could be carried out to are:

- Level 1 – desktop review with the assigned property manager/estates personnel of the condition and improvement requirements of each property;
- Level 2 – combination of on-site appraisal and interviews with key estates personnel with the intention of providing robust information to enable strategic decisions to be made on the future management, development and performance of the estate and form part of the baseline position for a PAMS;
- Level 3 – as Level 2 but with enhanced information sufficient to be able to prepare detailed annual maintenance schedules for each property.

Level 2 appraisals should (reasonably) attempt to access sufficient rooms to gain a full understanding of the overall condition of a department whereas Level 3 appraisals should access all rooms to provide an assessment of each room within the department.

Level 2 appraisals are the standard level recommended for a property appraisal using the processes described in this document.

The level of detail used in each appraisal must be clearly stated.

Ranking Protocol

Each building element and sub-element described in the List of Elements and Sub-Elements should be assigned a rank dependent upon its overall condition. This should follow the ranking protocol in the following table:

Ranking protocol for Physical Condition

A	Excellent/as new condition (generally less than 2 years old). Expected to perform as intended over its expected useful service life.
B	Satisfactory condition with evidence of only minor deterioration. Element/Sub-Element is operational and performing as intended.
C	Poor condition with evidence of major defects. Elements/Sub-Element remains operational but is currently in need of major repair or replacement.
D	Unacceptable condition. Non-operational or about to fail. Has reached the end of its useful life.
X	Supplementary rating added to D only to indicate that it is impossible to improve without replacement.

This information, along with the associated level of backlog maintenance and risk profile, should be used to formulate a rank for each block/department and then for the overall property.

List of Elements and Sub-Elements

	ELEMENT	SUB-ELEMENT
1	STRUCTURE	SUBSTRUCTURE FRAMES FLOORS & STAIRS ROOFS
2	EXTERNAL FABRIC	EXTERNAL WALLS & FINISHES WINDOWS & IRONMONGERY EXTERNAL DOORS & IRONMONGERY EXTERNAL CLADDING/EAVES DETAILS EXTERNAL DECORATION
3	ROOF	COVERINGS – PITCHED COVERINGS – FLAT ROOF LIGHTS RAIN WATER GOODS CHIMNEY STACKS & PARAPET WALLS
4	INTERNAL FABRIC	INTERNAL WALLS & FINISHES FLOOR COVERINGS CEILINGS FINISHES CEILINGS - SUSPENDED INTERNAL DOORS & IRONMONGERY INTERNAL DECORATION
5	INTERNAL FIXTURES & FITTINGS	SANITARY WARE/FITTINGS UNIT FURNITURE INTERNAL FITTINGS AND FURNITURE
6	EXTERNAL GROUNDS & GARDENS	LANDSCAPING WALLS, FENCING & GATES ROADS & CAR PARKS PATHS & PAVED AREAS EXTERNAL FITTINGS & FURNITURE ANCILLARY BUILDINGS
7	DRAINAGE & EXTERNAL SERVICES	DRAINAGE/SEWERAGE EXTERNAL UTILITIES INFRASTRUCTURE SITE LIGHTING LIGHTENING PROTECTION CCTV (EXTERNAL)
8	FUEL STORAGE & DISTRIBUTION	FUEL SUPPLY/DISTRIBUTION STORAGE
9	BOILERS & CALORIFIERS	BOILER PLANT PRESSURISATION PLANT CALORIFIERS/HEAT EXCHANGERS FLUES CONTROLS/METERS INSULATION

	ELEMENT	SUB-ELEMENT
10	STEAM SYSTEMS	DISTRIBUTION PIPEWORK VALVES CONTROLS METERS CONDENSE SYSTEMS INSULATION
11	HEATING SYSTEMS	DISTRIBUTION PIPEWORK HEAT EMITTERS CONTROLS HEATING PUMPS INSULATION
12	VENTILATION SYSTEMS	VENTILATION PLANT DISTRIBUTION DUCTWORK AUTOMATIC FIRE DAMPERS & CONTROL PANEL CONTROLS ROOM SPLIT/CHILLERS/COMPRESSORS CHILLERS/COOLING SYSTEMS COOLING TOWERS
13	MEDICAL GAS SYSTEMS	VACUUM INSULATED EVAPORATORS DISTRIBUTION MANIFOLDS GAS CYLINDER STORAGE OUTLETS ALARM SYSTEMS MEDICAL AIR COMPRESSORS/VACUUM PUMPS
14	HOT & COLD WATER SYSTEMS	WATER STORAGE & HEADERTANKS WATER TREATMENT PLANT DISTRIBUTION PIPEWORK PUMPS VALVES/CONTROLS WATER HEATERS INSULATION
15	LIFTS & HOISTS	PASSENGER LIFTS GOODS LIFTS HOISTS CONTROL PANEL
16	FIXED PLANT/EQUIPMENT	STERILIZERS BEDPAN DISPOSAL DISINFECTION EQUIPMENT CATERING EQUIPMENT LAUNDRY EQUIPMENT MISCELLANEOUS EQUIPMENT

	ELEMENT	SUB-ELEMENT
17	ELECTRICAL SYSTEMS	HV NETWORK GENERATORS SWITCHGEAR DISTRIBUTION BOARDS WIRING SYSTEMS/BONDING FITTINGS LUMINAIRES EMERGENCY LUMINAIRES
18	COMMUNICATION SYSTEMS	TELEPHONE SYSTEMS DATA TRANSMISSION PAGING SYSTEMS NURSE CALL SYSTEMS RADIO & TELEVISION SYSTEMS BEDHEAD SERVICES
19	ALARMS & DETECTION SYSTEMS	FIRE ALARM PANELS FIRE ALARM WIRING SYSTEM SECURITY SYSTEMS CCTV (INTERNAL) PANICK ATTACK SYSTEMS OTHER ALARM SYSTEMS
20	BUILDING MANAGEMENT CONTROL SYSTEM	BUILDING MANAGEMENT SYSTEM

Assessment Process

Each Sub-Element that is appraised should be assessed against the following criteria:

- its condition rank (see ranking protocol);
- the period (in years) that it will remain in condition B, or estimated remaining life;
- the cost (if any) to bring the sub-element back to condition B (see Section 2: Establishment of Costs);
- a risk assessment of the probability and impact of failure (see Section 3: Risk Assessment);
- additional information to briefly describe its condition, any rectification needed, and its general location.

The assessment should be carried out by suitably qualified people, or those with appropriate technical knowledge, to make competent, consistent and professional judgements relevant to the Sub-Elements being assessed against the above criteria.

For those Sub-Elements ranked as condition B, the period it will remain in condition B should be based on its current age and condition plus standard data on life expectancies.

Facet 2: Statutory Compliance

Description/definition

The appraisal of statutory compliance looks at compliance with all statutory guidance and legislation related to the estate; including fire, health and safety, and Disability Discrimination Act (DDA).

Compliance with estate related statutory guidance and legislation is the responsibility of specific 'duty holders' or 'responsible persons', which may include owners, landlords or contractors as identified in the relevant legislation, subject to the ownership, leasing and the operational management arrangements in place for the premises in question. In any case, a property appraisal should not alleviate any of these statutory or mandatory obligations.

Levels of Appraisal

The three possible levels of detail that the appraisal of statutory compliance could be carried out to are:

- Level 1 – an indication from the responsible estates personnel that appropriate controls are in place to manage this facet in accordance with the relevant legislation;
- Level 2 – a desk-top style interview of key personnel on the current status and findings from its Statutory Compliance Audit and Reporting Tool (SCART) system and other property assurance systems;
- Level 3 – a full on-site compliance check of any aspect of fire safety or health and safety compliance.

Level 2 appraisals are the standard level recommended for a property appraisal using the processes described in this document.

The level of detail used in each appraisal must be clearly stated.

Ranking Protocol

The standard ranking protocol does not apply to this facet. A short report will, however, be required that summarises the findings from the appraisal carried out.

Assessment Process

Where possible the information should be based on the findings from the SCART system (or other property assurance system). It is recognised, however, that this information may not always be available at a block/property level. In such cases an interpretation of the findings by key personnel may be appropriate.

The Level 2 review of the current status and findings from the SCART system should be structured so that, as a minimum, it provides the following information:

- the percentage of properties that have been risk assessed according to the SCART system;
- the percentage compliance of each property;

- the topics with least compliance;
- the highest risk items identified within SCART;
- details of action plans, including confirmation that outstanding works are costed and included within the backlog maintenance total;
- the degree of annual compliance improvement;
- evidence that the current compliance status has been accurately reported to the Board.

Outstanding items of work identified in the risk assessments should be included within the list of outstanding backlog maintenance items.

Where Level 2 information is not available on some properties then a Level 1 review should be carried out and should be structured so that it can answer the following questions:

- has an appropriate audit been carried out?
- are any issues appropriately risk assessed and/or managed?
- is an action plan for controlled rectification available that is linked to a capital programme?
- is suitable evidence available to demonstrate each of the above points?
- is the current compliance status accurately reported to the Board?

Facet 3: Environmental Management

Description/definition

Each NHSScotland healthcare body is already required to have an effective Environmental Management System (EMS) to measure performance and through which it can continually aim to improve its environmental performance, consistent with the European Union's and the Scottish Government's commitment to sustainable development.

NHSScotland has supported this general goal by developing an Environmental Management Action Plan that each NHSScotland Body should adhere to.

The Plan outcomes include:

- implementation of an EMS, Corporate GREENCODE, to establish environmental teams and responsibilities, including utilisation of the Corporate GREENCODE software to monitor legislative compliance;
- clarification of the Environmental Reporting process, including defining responsibilities, procedures and target setting, in line with the NHSScotland Annual National Environment Report;
- ensuring adequate provision of training and guidance to staff;
- identifying areas where existing Health Facilities Scotland (HFS) guidance may assist;
- identifying areas where partnership with other stakeholder groups such as Local Authorities, Scottish Environment Protection Agency (SEPA), the Carbon Trust, public transport providers and others could be beneficial.

These Mandatory Aspects are briefly summarised below, but the main Action Plan should be referenced for more details:

- effective EMS in place (and leading to ISO 14001 accreditation). Corporate GREENCODE used to report performance;
- environmental strategy to identify steps and performance for key parameters;
- environmental strategy to include targets for continued reduction in energy use;
- environmental strategy to include targets for continuing improvements in performance for key parameters;
- environmental strategy to include an assessment of climate change impacts and a suitable adaptation strategy, to plan for CO_2 emissions linked to property lifespan;
- environmental strategy to include measures promoting sustainable travel choices;
- environmental strategy to include targets for reduction of clinical, special and other wastes and identify reuse, recycling, and recovery opportunities;

- senior staff member appointed as Waste Management Officer for all aspects of waste management, to co-ordinate a committee and report to Chief Executive;
- waste management policy to allow for segregation and ensure security of clinical waste from areas of public access;
- staff induction/refreshers to emphasise need for waste segregation;
- environmental strategy to include plans to ensure compliance with EU Drinking Water Directive and Water Industry (Scotland) Act 2002;
- environmental management policy submitted to Scottish Government Health Directorate (SGHD) Property and Capital Planning Branch annually by 31st March;
- use appropriate benchmarking and indicators to assess performance in all areas of environmental management;
- conduct regular waste audits to review performance and highlight further actions;
- submit annual environmental return to HFS for the NHSScotland Annual National Environment Report.

The assessment of this facet does not aim to duplicate the reporting requirements of this Action Plan and the appraisal should, therefore, only need a desktop review of the NHS Board's compliance with the Mandatory Aspects of the Action Plan.

Levels of Appraisal

The three possible levels of detail that the appraisal of energy management could be carried out to are:

- Level 1 – an indication from the responsible person that an effective Energy Management System is in place using Corporate GREENCODE to report performance;
- Level 2 – a desk-top style interview with the responsible person on the current status of its EMS Action Plan and its performance levels reported using Corporate GREENCODE and eMART;
- Level 3 – a full energy and environmental impact assessment of each individual property.

Level 2 appraisals are the standard level recommended for a property appraisal using the processes described in this document.

The level of detail used in each appraisal must be clearly stated

Ranking Protocol

The standard ranking protocol does not apply to the main part of this facet. A short report will, however, be required that summarises the findings from the appraisal carried out.

This will include any financial requirements contained in the EMS report to ensure compliance with the mandatory aspects of the Action Plan.

Facet 4: Space Utilisation

Description/definition

This facet explores how well available space is being used related to the intensity of use i.e. the number of people using it and the frequency with which they use it.

Levels of Appraisal

The three possible levels of detail that the appraisal of space utilisation could be carried out to are:

- Level 1 – desktop review with an estates and/or service manager with a good understanding of the general usage of the estate;
- Level 2 – combination of on-site visual inspection of each department, discussions with users and consideration of acceptable space standards;
- Level 3 – a room by room assessment to identify the level of occupation of each room throughout a typical working day.

Level 2 appraisals are the standard level recommended for a property appraisal using the processes described in this document.

The level of detail used in each appraisal must be clearly stated.

Ranking Protocol

This facet should be appraised for each department and assigned a rank dependent upon its overall usage. This should follow the ranking protocol in the following table:

Ranking protocol for Space Utilisation

E	Empty or grossly under-used at all times (excluding temporary closure).
U	Under-used – utilisation could be significantly increased.
F	Fully used – a satisfactory level of utilisation.
O	Overcrowded, overloaded and facilities generally stretched.

Assessment Process

A Level 2 visual assessment of this facet is likely to indicate the intensity of usage at a given time. Therefore, in order to make a balanced assessment, this should be supported by talking to users, consulting technical guidance and by considering changes in use over time.

The following questions can be asked when conducting an appraisal of this facet:

- how intensively is the space being used?
- how does the usage vary over time (that is, a working day or a working week)?
- how does the available space compare with national guidance?

Facet 5: Functional Suitability

Description/definition

The aim of functional suitability is to determine how well the available accommodation supports the delivery of healthcare and is assessed on the basis of three elements: internal space relationships; support facilities; and location.

Level of Appraisal

The three possible levels of detail that the appraisal of functional suitability could be carried out to are:

- Level 1 – desktop review with an estates and/or service manager with a good understanding of the general functionality of the accommodation;
- Level 2 – combination of on-site visual inspection of each department and discussions with users about the three elements of functionality;
- Level 3 – a detailed on-site inspection of each department against a specific set of functionality related criteria.

Level 2 appraisals are the standard level recommended for a property appraisal using the processes described in this document.

The level of detail used in each appraisal must be clearly stated.

Ranking Protocol

This facet should be appraised for each department and assigned a rank dependent upon its overall functionality. This should follow the ranking protocol in the following table:

Ranking protocol for Functional Suitability

A	Very satisfactory, ideal accommodation, no change needed.
B	Satisfactory with only minor change needed.
C	Not satisfactory with significant change needed.
D	Unacceptable in its present condition, major change needed.
X	Supplementary rating added to D only, to indicate that it is impossible to improve without replacement.

Assessment Process

A Level 2 assessment of functional suitability should be based upon three elements: internal space relationships; support facilities; and location.

The following questions, and sub-criteria to consider, can be used when conducting an appraisal of this facet:

- how efficient is the relationship of the internal spaces to each other?
  - the layout of the accommodation allows safe and effective service delivery;
  - the available accommodation is sufficient for the department to function appropriately;
  - critical rooms are adequately sized;

  - good observation of patients is possible.

- are there sufficient services supporting the function?
  - adequate toilet and bathrooms facilities are available;
  - adequate storage space is available;
  - adequate seating and waiting space is available;
  - public areas are accessible for all.

- is the space well sited in relation to other departments and access points?
  - located close to inter-dependant departments;
  - access via vertical or horizontal circulation is good (lifts, stairs etc);
  - access is sufficiently close to car parks/public transport.

At Level 2, the sub-criteria can be used as background information to consider, whereas they may be used as specific criteria to be assessed and ranked against in a Level 3 appraisal.

Facet 6: Quality

Description/definition

The aim of quality is to determine how well the available accommodation provides a comfortable, modern, pleasing environment in which healthcare services can be provided. It is assessed on the basis of three elements: amenity; comfort engineering; and design.

Level of Appraisal

The three possible levels of detail that the appraisal of quality could be carried out to are:

- Level 1 – desktop review with an estates and/or service manager with a good understanding of the general quality of the available accommodation;
- Level 2 – combination of on-site visual inspection of each department and discussions with users about the three elements of quality;
- Level 3 – a detailed on-site inspection of each department against a specific set of quality related criteria.

Level 2 appraisals are the standard level recommended for a property appraisal using the processes described in this document.

The level of detail used in each appraisal must be clearly stated.

Ranking Protocol

This facet should be appraised for each department and assigned a rank dependent upon its overall quality. This should follow the ranking protocol in the following table:

Ranking protocol for Quality

A	A facility of excellent quality.
B	A facility of satisfactory quality with only general maintenance required.
C	A facility of less than satisfactory quality with investment needed.
D	A facility of poor quality with significant investment needed.
X	Supplementary rating added to D only, to indicate that it is impossible to improve without replacement.

Assessment Process

A Level 2 assessment of quality should be based upon three elements: amenity; comfort engineering; and design.

The following questions, and sub-criteria to consider, can be used when conducting an appraisal of this facet:

- does it offer an attractive and pleasing area for patients and staff (for example in terms of privacy, dignity, comfort, working conditions, signposting)?
- does it offer an acceptable environment (for example is it well lit, adequately heated and cooled, noise and odour free)?

- is the internal/external environment attractively designed (for example in terms of good colour schemes, well decorated, well furnished, enhanced by art, plants, landscaping, views etc)?

The collection of information in support of this facet can use a variety of different methods. An independent visual inspection of the department can also be supported by opinion gathering from those who use or work within the department e.g. patients, public, staff, etc.

2. Establishment of Costs

Backlog Maintenance Cost

The backlog maintenance cost of the estate should be established by considering the cost of bringing the estate back to condition B for the facet of physical condition. It should also include any outstanding non-compliance issues attributed to the statutory compliance facet.

Backlog maintenance costs should be expressed as works costs (that is, the base cost to undertake the work).

They should exclude fees, VAT, contingencies/risk, decanting, temporary services to other areas, enhanced weekend/ evening working rates, etc.

Where items of identified backlog for a property can be rectified by way of normal annual maintenance budgets, whilst the property remains operational and serviceable, then they are NOT to be classified as a backlog maintenance cost.

Costs should be derived from the following sources:

- local knowledge/experience of similar projects recently implemented or costed;
- cost information provided by professional specialist publications; such as Building Cost Information Source (BCIS) Dilapidations Price Book;
- nominal costs based on professional judgement and experience.

All estimated costs should reflect current prices, even though work might not be carried out until some future date.

Backlog maintenance costs should be reviewed annually to ensure accuracy in relation to inflation and further deterioration of backlog works.

Reporting of Costs

When reporting backlog maintenance costs to the NHS Board it is important to explain the basis of these costs, as discussed previously.

It is also important to explain what additional costs may be required to identify the real investment cost. For instance, this could include any of the following factors:

- enhancements for temporary works, disruption costs, decanting, enhanced weekend/evening working, contractor preliminaries, etc;
- contingencies;
- fees;
- VAT;
- rectification of functional suitability problems;
- works related to the Board's Environmental Management Action Plan;
- further improvements or additional building works required to an area due to the disruption caused by the backlog maintenance improvement works.

Further consideration should also be given to those areas where more detailed feasibility studies may be needed to identify the true project cost of an area/property i.e. where the work involved may result in the need for full refurbishment of an area or replacement of a property.

Feasibility studies of this nature do not form part of a Level 2 property appraisal and will, therefore, need to be carried out as a separate exercise.

Investment planning of backlog maintenance will need to be linked with the organisation's PAMS as solutions within that plan may resolve parts of the identified backlog maintenance.

3. Risk Assessment

Overview

Any identified item of backlog maintenance should be risk assessed in order to identify high risk factors in the estate that need to be addressed urgently and those that can be programmed into an estate investment planning process over a longer period.

Risks should be assessed according to the likelihood that the risk will be realised and the potential adverse consequence that might arise from the risk being assessed. This will produce a final risk score and ranking for each sub-element.

The Risk Assessment Process

The risk assessment process is outlined in detail in the following diagram.

The main principles are:

For each backlog maintenance item being assessed, a 'consequence' score of 1-5 should be assigned based on the potential adverse consequence that might arise as a result of the failure.

For each backlog maintenance item being assessed, a 'likelihood' score of 1-5 should be assigned based on the likelihood that the risk will be realised.

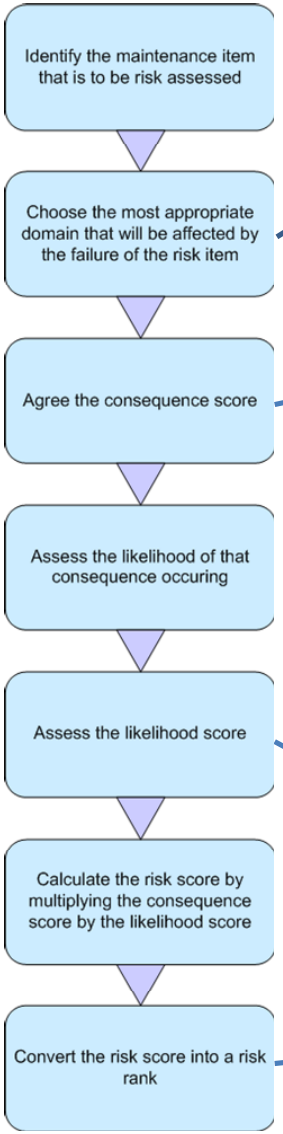
Once consequence and likelihood scores have been assigned, the scores should be multiplied together to produce a risk score. See worked example below:

Consequence score		Likelihood score	Risk Score	RANK
MAJOR		LIKELY		
4	X	4	16	HIGH

The consequence and likelihood tables can be adapted so that they are integrated with, or directly referred to within, a NHS Board approved risk management policy or strategy. This may include adapting the consequence domain or the likelihood indicators

Any risk ranking result should be compared against experience and other confirmatory data. This could mean reviewing the initial results using a small group of appropriate staff.

Risk Assessment Process



Score	CONSEQUENCE	CONSEQUENCE DOMAIN: Health & Safety	Environment	Business	Operational/ building/ engineering element
1	INSIGNIFICANT	No injury/ breach of guidance / procedures	No or minimal impact breach of guidance/ procedures	Unlikely cause of complaint. Litigation remote. Minimal reputation loss/ limited awareness within organisation	Minimal or no impact. Minimal or no disruption.
2	MINOR	Minor injury / ill health. Breach of legal requirement	Breach of legal requirement	Possible complaint. Litigation unlikely. Loss of reputation.	Localised impact. Disruption to normal services.
3	MODERATE	Moderate injury/ ill health. Breach of statutory obligations. Improvement notice issued.	Single breach of legal requirement. Improvement notice issued.	Possible complaint. Possible litigation. Loss of reputation. National paper reporting.	Moderate impact. Moderate disruption to normal services.
4	MAJOR	Major / significant injury or long term incapacity/ disablement. Prohibition notice issued.	Multiple breach of legal requirement. Prohibition notice issued.	Litigation expected. Loss of reputation. National reporting	Major/ significant impact. Severe disruption to normal services.
5	CATASTROPHIC	Fatality and/or permanent incapacity/ disability. Prosecution	Multiple breach of legal requirement. Prosecution.	Litigation certain. National adverse publicity.	Critical impact. Service closure.

Score	LIKELIHOOD	LIKELIHOOD INDICATORS	Estimated Time to Failure
1	RARE	None or minimal remedial action required and/or new/ recent upgrade	Circa > 10 years
2	UNLIKELY	Normal wear and tear. Sound, operationally safe and exhibits only minor deterioration.	Circa 4 – 6 years
3	POSSIBLE	Reasonable physical damage/ deterioration. Reassignment of life may be acceptable based on technical tests or residual robustness.	Circa 2 – 4 years
4	LIKELY	Major physical damage/ deterioration. Failure apparent/ assessed as imminent or unacceptable built environment. Not appropriate to reassign life.	Circa 1 – 2 years
5	CERTAIN	Failure occurred. Unacceptable built environment. Not appropriate to reassign life.	Circa < 1 year

1 – 6	LOW
7 – 10	MODERATE
11 – 15	SIGNIFICANT
16 – 25	HIGH

Outcome from the Risk Assessment Process

The outcome from the risk assessment process is that each item of backlog maintenance will be risk profiled into four ranks. This information can be used as a starting point for prioritising the rectification of backlog maintenance.

The results should also be fed into both the PAMS for the estate as well as any Estate Investment Plans (see Section 6 for details)

Low risk elements should be further considered to ascertain whether they can reasonably be resolved by way of normal annual maintenance budgets and thus not requiring capital to undertake major repair or replacement. In such cases, Low Risk Backlog Maintenance does not need to be reported/ classified as backlog.

Moderate risk elements should be addressed by close control and monitoring. They can be effectively managed in the medium term so as not to cause undue concern to statutory enforcement bodies or risk to healthcare delivery or safety. These items require expenditure planning for the medium term.

Significant risk elements require expenditure in the short term and should be effectively managed as a priority so as not to cause undue concern to statutory enforcement bodies or risk to healthcare delivery or safety.

High risk elements must be addressed as an urgent priority in order to prevent catastrophic failure, major disruption to clinical services or deficiencies in safety liable to cause serious injury and/or prosecution.

4. Data Collection, Management and Reporting

There are three main stages through which data is collected, stored and then reported. Each of these stages must be carefully managed and pre-planned to ensure consistency and accuracy of information.

Data Collection

The process of collecting data should be approached pragmatically based upon informed and experienced observations. It will constitute a snapshot in time and, therefore, needs to be completed within a reasonably tight timescale.

Much of the appraisal work and allocation of ranks, risks, etc, will rely on subjective assessment. It is impossible to make assessments objective as there is no absolute measure of the right standard for a building's condition or performance. The use of experienced assessors and robust quality control of information will help to reduce the level of subjectivity and variance in reported data.

The collection of information should be recorded on standard survey report forms so that data is collected across each property in the same way. These may be designed specifically to suit the organisation collecting the information but they must be mindful of the database they are to be entered into and the output reporting requirements.

Storage of Information

The storage of data should be via electronic means usually in the form of either a spreadsheet or database. This will allow robust data management, ease of information retrieval, and the ability to analyse and/or aggregate the information to suit the output reporting requirements.

It is important to ensure that the structure of the data collection and storage of information allows the reporting of that information to be done as efficiently and effortlessly as possible.

Reporting of Information

At the output reporting stage, information will need to be aggregated so that it can be reported on a hierarchical basis. The following table indicates the type of information that can be reported at each level.

Hierarchical Level	Information
NHS Board/Organisation	Overall area Overall backlog cost Overall backlog cost/m^2 Overall risk profile of backlog costs
Site Level	Site area Site backlog cost Site backlog cost/m^2 Site risk profile of backlog costs Fire, health & safety assessment Environmental management assessment
Building Level	Building address Building area Building age Building ownership Building type Physical condition rank Building backlog cost Building backlog cost/m^2 Building risk profile of backlog costs
Department Level (or other sub-division)	Department area Department age Department Physical condition rank Department backlog cost Department backlog cost/m^2 Department risk profile of backlog costs Department space utilisation rank Department functional suitability rank Department quality rank

The database of appraisal information should enable a summary overview of the appraisal results to be produced. This, as a minimum, could provide similar information to that in the table overleaf.

Once this summary information has been produced it should then be further analysed so that information can be presented to the NHS Board and investment decision-makers in a way that is meaningful to them.

This may include the use of tables, graphs, site layout drawings and appropriate narrative on the main problems identified by the property appraisal and how investments may be prioritised. The following sections highlight typical ways in which this information can be presented in an easily understandable and meaningful way. This is not meant to be an exhaustive list of reporting requirements.

Typical Table Summarising Property Appraisal Results

Type	Name	GIA sq.m	GIA as % of Total Area	Ownership					Backlog Expenditure Required (£m)					
					PC	FS	Q	SU	Low Risk	Moderate Risk	Significant Risk	High Risk	Total £ millions	Cost per £/sq.m
CHP (A)	Health Centre name (1)	1,500	14.3%	NHS	B	C	C	F	0.10	0.10	-	-	0.20	133
CHP (A)	Health Centre name (2)	2,000	19.0%	NHS	D	C	D	F	1.00	1.00	2.00	-	4.00	2,000
CHP (A)	Clinic name (3)	500	4.8%	NHS	C	B	C	U	0.10	0.10	0.50	-	0.70	1,400
CHP (A)	Clinic name (4)	500	4.8%	NHS	C	C	B	U	0.20	0.10	0.50	-	0.80	1,600
CHP (A)	Office name (5)	2,000	19.0%	Leased	B	B	B	F	-	-	-	-	0.00	0.00
CHP (A)	Office name (6)	1,000	9.5%	Leased	A	B	B	F	-	-	-	-	0.00	0.00
CHP (B)	Health Centre name (7)	1,000	9.5%	NHS	C	B	B	F	0.10	0.20	0.50	0.20	1.00	1,000
CHP (B)	Clinic name (8)	700	6.7%	NHS	D	C	D	F	0.20	0.20	0.70	0.30	1.40	2,000
CHP (B)	Office name (9)	800	7.6%	Leased	B	B	C	F	0.05	-	-	-	0.05	62.5
Other	Other name (10)	500	4.8%	NHS	B	B	C	U	0.02	-	-	-	0.20	40
	TOTAL	**10,500**	**100%**						**1.77**	**1.70**	**4.20**	**0.50**	**8.35**	

For hospital sites, the ‘property name’ is likely to be each block within the site, which may be shown as individual tables for each site dependant upon the size of the site and the property portfolio.

Examples of Reporting Outputs

Reporting on an Organisation's Property Portfolio

The first step towards presenting an overview of the condition and performance of an organisation's property portfolio is to describe the range and type of properties that make up that portfolio.

This could cover an analysis of the different types of properties, the different ownership arrangements, and the different sizes of properties.

The following three charts/tables demonstrate how this information could be represented:

Typical analysis of Property Types

	Area (GIA) sq.m	% of Total Area
Hospitals	200,000	80%
CHP (A) - Health Centres, Clinics and Offices	25,000	10%
CHP (B) - Health Centres, Clinics and Offices	22,000	9%
Other	3,000	1%
Total:	250,000	100%

Alternatively, this information could be shown in a pie chart type format.

This analysis could be useful when considering whether the type of property reflects the strategic intentions and service needs of the NHS Board i.e. is their an appropriate balance between acute and primary care facilities that is reflective of increased care closer to home?

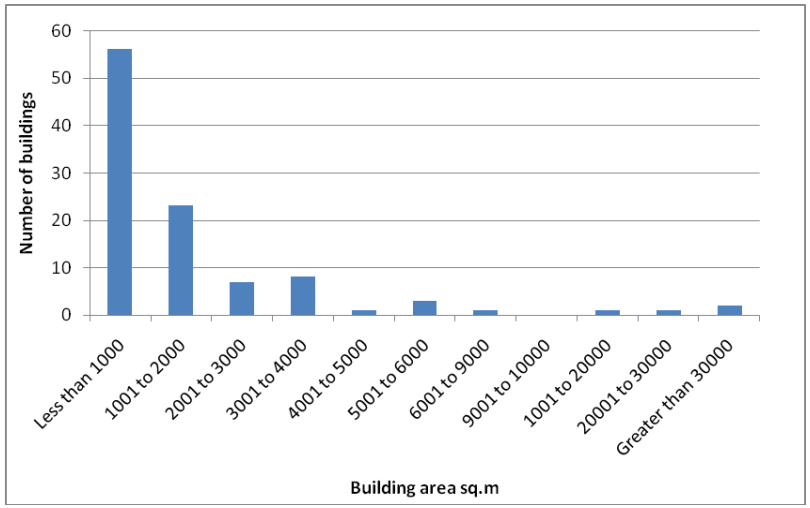
Typical analysis of Property Ownership

	Area (GIA) sq.m	% of Total Area
NHS Ownership	150,000	60%
PFI/PPP	75,000	30%
Leased	25,000	10%
Total:	250,000	100%

Alternatively, this information could also be shown in a pie chart type format.

This information can provide a better understanding of the proportion of the estate with different maintenance responsibilities associated with different property ownership. When matched with backlog maintenance or property running costs, is there a difference between NHS owned properties and leased properties?

Typical analysis of the size range of Properties



A chart typical to the above will highlight the balance between small, medium and large properties across an estate. This information could be used to highlight any imbalance and/or potential for rationalisation of smaller properties.

Reporting on the findings from the Property Appraisal exercise

In support of the overall summary table of the appraisal results, each facet of the appraisal can also be summarised in a table format typical of the one shown below:

Typical Analysis of each Appraisal Facet

Ranking	A Very satisfactory	B Satisfactory	C Not satisfactory	D Unacceptable
Area sq.m	85,000	80,000	76,000	9,000
Percentage of the estate (area) in each category	34%	32%	30%	4%

This information can also be represented using a pie chart type format.

The colour coding follows a 'traffic light' type system whereby those ranked as unacceptable are coloured red whilst those ranked as satisfactory are coloured green. The colour coding helps to enhance the visual representation of the data.

Reporting on the Backlog Maintenance Risk Profile

The risk assessment of backlog maintenance aims to identify high risk factors in the estate that need to be addressed urgently and those that can be programmed into the estate investment planning process over a longer period. The presentation of this information in a table format such as that below, (or a similar pie chart format), helps the viewer to appreciate the spread of risk between high, significant, moderate, and low risks.

Backlog Maintenance Risk Profile

Backlog Maintenance Costs				
Risk Category				Total £ millions
Low	Moderate	Significant	High	
18.5	14	41.5	15.5	89.5
21%	16%	46%	17%	100%

The proportion of high and significant risk items of backlog maintenance will be important information to feed back to the PAMS and estate investment plans.

5. Performance Analysis

The purpose of performance analysis is to review whether the condition and performance of the estate is reasonable in relation to others, to set targets towards improving the estate, and to review progress against those targets.

Analysis of the performance of the estate can either be done via comparison with other similar organisations or by comparison with previous years' information.

Comparison with similar organisations will require benchmark information to be obtained.

Comparison of annual improvement will require data to be collected on a consistent basis and for it to be updated annually. The property appraisal process described in this document sets out how to collect information on estate assets in a consistent manner; the information will therefore need to be updated on an annual basis to enable annual improvement comparisons to be made.

If an update to the property appraisal information is carried out annually then a Level 1 appraisal may be sufficient for this purpose, however, a full Level 2 re-appraisal will be required once every 5 years.

The type of information that can be analysed to review performance may include:

- changes in the size of the estate;
- changes in the proportion of the estate in rank B for each facet;
- changes in the overall level of backlog maintenance and its relative amount i.e. cost/m^2;
- changes in the risk profile of backlog maintenance;
- changes in the age profile to the estate;
- changes in the occupancy costs related to the estate i.e. maintenance costs, energy costs, capital charges, rent/rates, etc.

The following table outlines a typical annual performance review using some of the above data. It provides a quick reference guide to the changes between one year and another. This could then be continued each year to enable any trend analysis to be developed.

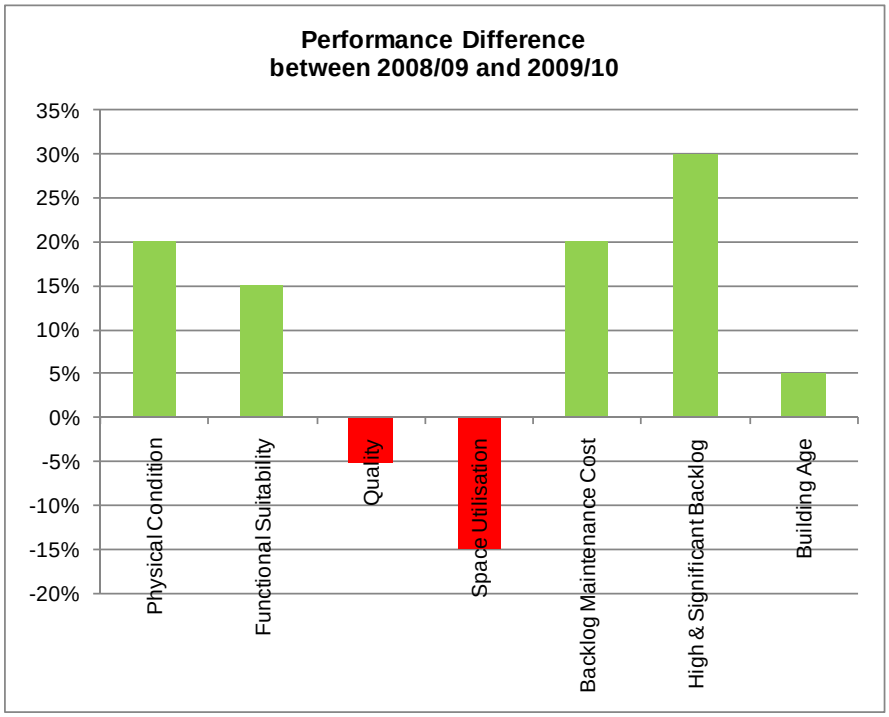
Annual Performance Analysis

Performance Indicator	Performance Measure	2008/09	2009/10	Percentage Difference
Physical Condition	Percentage in rank B (or above)	50%	70%	20%
Functional Suitability	Percentage in rank B (or above)	60%	75%	15%
Quality	Percentage in rank B (or above)	70%	65%	-5%
Space Utilisation	Percentage that is fully utilised	65%	50%	-15%
Backlog Maintenance Cost	Cost (£)	1,000,000	800,000	20%
High & Significant Backlog	Cost (£)	500,000	350,000	30%
Building Age	Percentage below 15 years old	30%	35%	5%

The above table can be supported with a chart (see opposite) that presents the results in a graphical format. It is much easier to see from the chart which performance items have improved and which have not over the 2 reporting years.

A similar table and chart could be used to compare changes in annual property occupancy cost information.

Annual Performance Changes



The baseline in the above chart is 0% i.e. zero change from one year to the next. If comparative data from other similar organisations were available then a different baseline for comparison could be set at either average or top quartile performance for each performance indicator. A similar chart could then be produced to review an organisation's performance against the average/top quartile performance of all other similar organisations.

6. Estate Investment Planning

The findings from the property appraisal exercise will form part of the baseline position for a PAMS. This will provide a co-ordinated plan aimed at providing safe, secure and appropriate assets that support service requirements and contribute to achieving Scottish Government policies on health and sustainability. It will also ensure that the NHS achieves value for money from its management of assets.

The PAMS implementation plan will, amongst other things, set out:

- a schedule of proposed asset improvements and developments to support service/capacity requirements and improvements in the quality of the estate;
- a schedule of proposed asset acquisitions and disposals;
- a plan for change that enables progress towards goals to be measured;
- a clear commitment to complying with sustainable development and carbon reduction initiatives;
- a means of targeting investments to minimise the risks associated with the asset ownership;
- an opportunity to optimise asset ownership costs.

This PAMS implementation plan is not, however, likely to identify and resolve all condition and performance issues identified in the property appraisal exercise. A secondary Estate Investment Plan may, therefore, also be required.

The Estate Investment Plan should concentrate solely on those assets, or maintenance works, that will not be affected by the PAMS implementation plan. It is, therefore, likely to consist of minor capital works and planned maintenance works. The principles of providing safe, secure and appropriate assets remain the same, as well as the achievement of value for money in any investment.

The Estate Investment Plan should include some of the following:

- a risk based assessment of the priorities for improvement;
- an indication of how it will support the targets for improvement set out in the PAMS plan;
- a programme of works linked to an Environmental Management Plan (where not included within the PAMS plan);
- a plan to reduce estate occupancy costs;
- a programme of minor capital and planned maintenance works in support of the above.