National Audit Office

NATIONAL OFFENDER MANAGEMENT SERVICE

Maintenance of the prison estate in England and Wales

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL | HC 300 Session 2008-2009 | 21 May 2009

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Comptroller and Auditor General
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15 May 2009

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CONTENTS

Photograph courtesy of National Offender Management Service Custodial Property

SUMMARY

The prison estate

1 An increasing prison population, frequent overcrowding and a high turnover of prisoners combine to create substantial pressures on the prison estate. There is a high demand for services such as water and heating, and a high level of wear and tear on fixtures, as well as on the building fabric. Maintaining the estate in a secure and well-ordered condition under these circumstances requires effective planning and delivery of large scale maintenance projects, and responsive local maintenance teams to keep services and accommodation operational at all times.

2 The estate is accommodating an increasing number of prisoners: excluding privately-run prisons, over 73,000 people were held in custody in 2007-08 in England and Wales, up from 69,000 in 2005-06; and prisons are subject to constant high levels of prisoner occupancy. Accordingly the total estate is continuing to grow and a major capacity building programme is underway. Some old prison wings have been demolished with new wings constructed on the same site, while old wings have received complete or partial refurbishment to extend their life and to meet new standards.

3 In May 2007, the Government created the Ministry of Justice. A subsequent review resulted in organisational changes effective from 1 April 2008, including the formation of the National Offender Management Service Executive Agency (the Agency). The Agency combined large parts of the former National Offender Management Service headquarters, HM Prison Service and the National Probation Service into one body. It aims to deliver more effective offender management and to strengthen and streamline commissioning of services for offenders from the public, private and third tier sectors, with the goal of improving efficiency and effectiveness. The Agency, through HM Prison Service (the Prison Service), operates and maintains a large and complex estate of 129 prisons in England and Wales. Nearly 50 per cent of current prisons were originally opened in or prior to the 19th century and the oldest building still in use is at HM Prison Lancaster Castle which dates back to 1200. The newest buildings opened in the current decade. Prisons vary greatly in their form and functions as well as in age and size.

Maintenance of the estate

4 Maintenance tasks range from day to day repairs arising from wear and tear or vandalism, planned inspections, and preventive and corrective work, through to the complete refurbishment or the renewal of major assets, such as heating and sewage systems. In 2007-08, the Agency spent around £320 million maintaining the prison estate, down from an estimated £330 million in 2005-06 (in 2007-08 prices), despite an increasing prisoner population. This expenditure also covers maintenance staff, small-scale routine maintenance undertaken by local teams, and major refurbishments of whole prison wings and building services infrastructure.

Scope of our study

5 In this report, we consider whether the Agency has clear aims for prison maintenance, whether it is using the estate maintenance budget efficiently and effectively, and whether it is maintaining the prison estate adequately. This examination covers maintenance of the existing prison estate only. It does not examine the procurement and construction of new prisons or wings to hold the increasing population as part of the Ministry of Justice's capacity building programme. The examination covers the physical aspects of the current prison estate only. It does not assess overall prison regimes or decency standards, as these are affected by a wider range of factors such as prison operations, staffing and services for prisoners.

Key findings

On the physical condition of the estate

6 We employed professional chartered building surveyors, who had extensive experience of the prison estate, to accompany us on each of our eight prison visits to help us assess these buildings. In these prisons, the buildings were generally: weather-tight; structurally sound with no evidence of any substantial subsidence or structural movement; and reasonably well decorated. The Governors, prison officers, maintenance staff and the prisoners also generally reinforced this view during our eight prison visits.

On the management of prison maintenance

7 Overall, the Agency has a strong management system for prison maintenance; has clear quality standards for prison buildings and plant; a system for prioritising maintenance programmes for each of the Prison Service's 12 Areas (11 geographically-based and a single High Security Area with prisons distributed across England and Wales); and devolved management structures for maintenance to Areas and individual prisons.

8 The Agency includes its highest priority, large-scale projects in its planned maintenance programme for each year with an intended start date for each project. It may defer the actual start dates for some projects, however, should no funding be available. Other high priority approved maintenance projects within the five year forward plan, particularly smaller-scale ones, may be brought forward to draw on any remaining funds towards the end of the financial year. In our visits to prisons, Governors, Area Estate Coordinators (responsible for the overall maintenance of prisons) and works teams considered that projects brought forward are not always those ranked the highest in the overall list of priorities, although these projects are from the five year maintenance plan which includes only priority projects.

9 Changes to the start dates of major projects cause uncertainty to the prisons concerned, and to Area Estate Coordinators, over when major projects will begin. This uncertainty creates difficulties in planning the amount and cost of ongoing maintenance work they must still carry out on assets until the major project begins. The Agency is responsible for advising the prisons and Area Estate Coordinators on the actual start dates of planned work. The primary reason for delaying major maintenance projects is population pressures, which limit the space available to move prisoners out of wings requiring refurbishment to alternative prison accommodation.

10 The Agency considers the operational life, and additional maintenance resources required, of specific refurbishment projects. It does not, however, have long-term plans for managing the economic life of individual plant machinery and other individual assets. It therefore has a limited understanding of the most cost-effective times to switch from servicing and repairs of particular assets to complete refurbishment or replacement.

11 The Agency recommends planned visual checks in line with manufacturers' recommended maintenance requirements. The Prison Service is implementing a Service Focussed Maintenance regime which aims to give greater flexibility in visual checks, a greater emphasis on the effective use of resources, and is designed to encourage maintenance teams to use their discretion and assess the opportunities and risks from deferring visual checks that add little value. At March 2009, Service Focussed Maintenance had been introduced in half the prisons in the estate, and in four of the eight prisons we visited. The Prison Service expects to complete the roll-out to the remainder of the estate by May 2009. But even in some prisons in which Service Focussed Maintenance was in place, maintenance teams are still receiving orders from their computer-aided maintenance package, which records maintenance work and repairs (Planet FM), to carry out visual checks on assets which are in continuous use and where any failure would be immediately reported by those affected. Greater adoption of the flexibility in the application of visual checks offered by Service Focussed Maintenance should enable maintenance teams to carry out more corrective or preventive work and servicing, and improve value for money.

12 We used the Agency's major maintenance project database to review how contractors were employed nationally and across the 12 Areas. In each Area, more than one company was carrying out major maintenance contracts, to avoid monopolising provision.

On the links between refurbishing the estate and maintaining it

13 During our eight visits to prisons, we found there had been past instances of limited handover arrangements between external contractors and prison maintenance teams following the completion of refurbishment or maintenance work. Poor handovers had resulted in difficulties in ongoing maintenance by the local teams, who have also needed to correct defects in place at the time of handover. In 2008, the Agency introduced a procedure which aimed to remedy this problem, by highlighting the importance of effective handovers. The new procedure aims to strengthen handover arrangements between external contractors and prison works teams for all new capacity and major maintenance projects. The external contractors are required to remedy any reported defects before the handover is signed off.

14 Prior to the introduction of the new handover procedures, prison maintenance teams had not been routinely consulted in the design and construction of refurbished parts of the estate. Although it is too early to report on the extent to which the new procedures have bedded in, consultation does now take place between senior Prison Service officials, prison maintenance managers and contractors. While the Prison Service assesses the funding required to cover future maintenance, closer joint working between contractors and local maintenance teams gives scope to include proposals for low cost ongoing maintenance and to improve value for money.

15 The Agency has developed a range of technical specifications for common adoption in refurbishing the estate. These feature in its technical manuals and are raised in discussions with external contractors. Within prisons, however, we found little standardisation of the parts, materials, fixtures and fittings used, even on recently refurbished wings. There was considerable evidence of different specifications and parts used by contractors within and between prisons, a view confirmed by Area Estate Coordinators and site maintenance teams.

On performance management of prison maintenance

16 The Agency has the ability to monitor and manage performance if Planet FM is used consistently, key maintenance fields are completed and performance targets are effectively designed. The Agency does not, however, routinely analyse the type, number or location of prison maintenance tasks over time, or how much is being, and has been, spent in total and by each prison on maintenance. The lack of such analysis substantially restricts the Agency's ability to assess the maintenance funding required in future years or the cost-effectiveness of the various maintenance delivery structures. Such analysis would enable the Prison Service to produce robust financial and performance management information, allowing Area and senior managers to understand and manage better the overall maintenance of the prison estate.

17 The Agency has limited ability to monitor and manage the performance of maintenance work because key maintenance performance targets are not effectively designed. A target for 100 per cent completion of all planned maintenance work, for example, is automatically met as the system only counts planned maintenance tasks issued to staff, and not all tasks logged. Prison works managers only issue maintenance tasks which they are sure maintenance teams can complete.

Conclusion on value for money

18 The Agency has obtained good value for money from its expenditure on prison maintenance and was maintaining the prisons we visited sufficiently well to preserve physical security, prisoner capacity, prisoner and staff safety, and their own and legal standards. The Agency has introduced procedures aimed at improving the handover of major maintenance projects from external contractors and to assess the future maintenance costs of refurbished or replacement assets.

19 Our findings from benchmarking estate management externally, and our review of internal standards, structures and funding arrangements, indicate that the Agency does not plan the maintenance of assets over their whole economic life, or prioritise and schedule major maintenance work as robustly as it might. Nor does it monitor information on asset management and manage risks fully which would aid the more effective operation of assets. Long term maintenance is complicated by a lack of consultation between those designing and constructing large scale refurbishments, and the prison maintenance teams charged with maintaining them. There is also little standardisation of parts and fittings. The effective rollout of Service Focussed Maintenance would bring flexibility in scheduling planned inspections and allow maintenance teams to give greater emphasis to corrective or preventive maintenance, helping the Agency meet the maintenance priorities for the estate.

Recommendations

20 We recommend as follows:

a **Flexing the start times of approved major projects to avoid expenditure over-runs can affect maintenance priorities across the financial year. As a result, some projects may commence that do not always rank highest in the overall list of priorities**. The Agency should have a robust and consistent system for deciding which high priority major approved projects to start on and for ranking projects relative to each other. Decisions to defer any of these projects when the total estimated costs of all approved projects exceed maintenance budgets in any year should reflect relative priorities and an assessment of the relative costs of holding over projects.

b **The Agency does not have long-term maintenance plans for individual assets over their economic life and does not have a full understanding of the optimal times to switch from servicing and repair of an asset to its complete refurbishment or replacement**. The Agency should develop long term plans for maintaining plant, equipment and other assets, over their economic life, in line with its planning for the maintenance needs of major refurbishments over their economic life. Developing long-term plans for individual assets would help the Agency make explicit decisions between funding a maintenance task now, delaying it until a later date, or other options such as funding the asset's refurbishment or replacement. Better informed decisions would contribute to reduced total maintenance costs in the long term.

c **The Agency recommends planned visual checks of assets in line with manufacturers' recommended maintenance requirements, but many assets do not give an early indication of future failure, and the failure of some assets is obvious when it occurs and are effectively self reporting. The checks divert resources and offer less value than corrective or preventive servicing maintenance, or carrying out reactive maintenance tasks if the asset fails to work**. In completing the roll-out of Service Focussed Maintenance across the estate, local maintenance teams should use the flexibility it provides to defer visual checks of plant or equipment unless these are part of taking corrective or preventive actions.

d **The Agency does not make the most of joint working and consultation at all levels between those designing and building new or refurbished parts of the estate and those responsible for operating and maintaining the estate**. Within the Agency's developing integrated estate function, it should:

- reduce the costs of assets over their whole working life, through including low-cost maintenance options into the initial design, building plans and contracts for refurbished and replacement assets; and
- adopt in full its new procedures for handover between external contractors and prison maintenance teams to improve the transfer of knowledge to prison maintenance teams on the infrastructure and services in the buildings and the materials, fixtures and fittings used, and to confirm the effective working of assets and the correction of any defects prior to handover.

e **The Agency has developed technical specifications for prison buildings, equipment and fixtures and technical manuals for contractors, but a wide variety of specifications and materials has been used in recent refurbishments. Centrally, the Agency has shifted towards performance specification, leading to a wide variety of solutions, driven by a desire to ensure a greater degree of competition during the procurement of projects**. The Agency should use whole lifecycle costing to optimise and reduce the number of different products being used in projects. It should require contractors to adhere to its technical specifications and to use its approved materials and products on refurbishment projects. Consistent use of such supplies would provide greater buying power, economies of scale, commonality of spares and common training of the staff charged with maintenance and repair of the assets.

f **The Agency does not implement a systematic process for analysing the type, number or location of prison maintenance tasks over time, or how much is, and has been, spent in total and by each prison on maintenance. The Agency collects most of the required information, but stores it in several separate databases that are not joined up**.

The Agency should:

- improve the links between the various databases it uses to store information on maintenance tasks, in order to improve the monitoring of maintenance projects, allow analysis of prison workloads and the identification of trends, and to identify examples of good practice or where improvements can be made; and
- monitor overall maintenance demands over time through more systematic analysis of its Planet FM and Work Package Management System data, so as to improve its understanding of the performance of maintenance projects over time.

g **The Agency has the ability to monitor and manage performance if Planet FM is used consistently, key maintenance fields are completed and performance targets are effectively designed. Key maintenance performance targets are not, however, effectively designed. For example, the 100 per cent target for completion of all planned maintenance work is automatically met, as the system only counts planned maintenance tasks issued to staff, and not all tasks logged**. The Agency should develop robust Key Performance Targets for planned and reactive maintenance, capable of determining real differences in practice and performance across Areas. Guidance from the National Audit Office, Cabinet Office and HM Treasury[1] highlights the criteria for effective key performance targets. Areas should develop consistent reporting of Service Delivery Agreement data.

1 *Setting Key Targets for Executive Agencies*: A Guide, HM Treasury, Cabinet Office, NAO November 2003.

h **The Agency is hampered in assessing maintenance funding required in future years or the cost-effectiveness of the differing structures across Areas for managing prison maintenance by not having as full a picture as it could of current spending**. The Agency should examine the Estate Planning Tool and Estate Performance Measurement System which the Ministry of Defence has developed to manage its own estate. Such a system should help track the condition of the prison estate over time and allow the Agency to estimate the performance of contractors.[2]

i **The Agency collects most of the information necessary to monitor the progress of maintenance work, but stores this information in several separate databases that are not joined up. The resulting difficulty in combining and analysing performance data makes it difficult for the Agency to assess how well prisons are performing in carrying out maintenance projects**. The Agency should improve the links between the various databases it uses to store information on maintenance tasks, in order to improve the monitoring of maintenance projects, allow analysis of prison workloads and the identification of trends, and to identify examples of good practice or where improvements can be made.

j **There are wide differences between central performance data and reports from prison maintenance teams on the degree to which vandalism by prisoners causes reactive maintenance work. The Prison Service is unable to identify centrally the overall amount and cost of maintenance work resulting from vandalism and does not know which prisons have the highest disturbance and vandalism levels**. Maintenance staff should always fill in the fields on Planet FM recording the reason for maintenance work to improve the reliability of information. The Prison Service should use this information to see how far maintenance costs reflect issues of prison discipline, so that action can be taken to limit the damage and related maintenance costs.

21 Further recommendations taken from previous NAO reports which are relevant to the findings of this report can be found in Appendix 3.

2 Managing the Defence Estate: Quality and sustainability (HC 154, 23 March 2007).

PART ONE

The prison estate and prisoner population

The National Offender Management Service and HM Prison Service

1.1 In 2004, the Government created the National Offender Management Service within the Home Office, to encompass HM Prison Service, the National Probation Service and private sector prisons as providers of offender management services.

1.2 For the custodial estate, the National Offender Management Service sought to achieve any new capacity required, by either commissioning private sector providers to construct the new capacity (generally via competition) or instructing its own estate organisations (Estate Planning and Development Unit and Custodial Property Unit), to plan and construct the new capacity using private sector suppliers.

1.3 Within the National Offender Management Service, the Prison Service had responsibility for day to day maintenance of public sector prisons. Private sector operators were responsible for day to day maintenance of private prisons and the public sector prisons they operated. This responsibility covered estate management organisation, and the resources and funding to undertake this role.

1.4 For major maintenance, the National Offender Management Service was responsible for funding projects in both public sector prisons and publicly owned but privately contracted prisons. For privately operated prisons, the National Offender Management Service provided the funding, but the private sector operator was responsible for arranging planning and delivery of the work. For public sector operated prisons, the National Offender Management Service planned, funded and managed the work. For privately operated prisons procured under the Private Finance Initiative, the operator was responsible for day to day and major maintenance.

1.5 The Government created the Ministry of Justice in May 2007 and formed the National Offender Management Service Executive Agency (the Agency) in April 2008. The Agency combined large parts of the former National Offender Management Service headquarters, HM Prison Service (the Prison Service) and the National Probation Service into one body. It aims to deliver more effective offender management and to strengthen and streamline commissioning, with the goal of improving efficiency and effectiveness.

1.6 The Agency is basing its future operations on ten offender management regions, each headed by a Director of Offender Management, who will be responsible for the delivery of all prison and probation services in their region. The Directors of Offender Management will report to the Agency's Chief Operating Officer who in turn reports to the Agency's Director General. The Agency will continue to operate a separate High Security Directorate with responsibility for High Security prisons.

1.7 The Agency has created a new Estate Capacity Directorate. The new directorate is responsible for coordinating all estate requirements across the Agency. It provides an opportunity to join up and streamline estate maintenance services across both the prison and probation estates. As part of the new Estates Capacity Directorate structure, the Agency has set up an Estate Asset Management Unit. It is commissioning an estates maintenance review to start work in 2009-10. This review will be supplemented by a custodial property asset review which commenced in April 2009 and which will include a condition survey of the estate.

The Prison Service's funding and staffing structures for maintenance of the prison estate

1.8 In 2000, the Prison Service carried out a 'Review of Works Departments' in prisons, the recommendations of which led to the introduction of dedicated maintenance works teams in prisons, within a professional estates management structure. The review also recommended that maintenance budgets should be ring-fenced to guarantee that resources were allocated exclusively to maintenance tasks. From the prison staff we interviewed, we found that the introduction of ring-fenced maintenance budgets was widely perceived as having a positive impact on the overall quality of the prison estate.

The size and nature of the prison estate in England and Wales

1.9 Prior to the setting up of the new structure for Directors of Offender Management, the Agency operated 129 publicly-run prisons in England and Wales, across 12 Areas, including one for Wales and one for the High Security Estate **(Figure 1 overleaf)**. Prisons are categorised into the different types of prisoners they hold[3].

1.10 The prison estate is made up of buildings of widely-varying ages. HM Prison Lancaster Castle has buildings dating back to 1200. Nearly 50 per cent of prisons were originally opened in the 19th Century or before. Some 40 per cent of prisons in the current estate are still comprised of mainly 19th Century buildings. The remaining 19th Century prisons have been fully or partly demolished with new buildings erected on the same site. Apart from the most recently constructed new prisons, many prisons are made up of a range of buildings of differing ages **(Figure 2 on page 13)**.

1.11 Prisons also differ considerably in the number of prisoners they hold (from 100 to nearly 1,500 prisoners), the area of their estate (from less than 10,000m^2 to over 50,000m^2) and their population density (from only 11m^2 per prisoner to 240m^2 per prisoner[4]; **Figure 3 on page 13**). The prisoner population, excluding those held in privately run prisons, has increased from 69,000 in 2005-06 to 73,000 in 2007-08 and prisons are subject to increasingly high levels of prisoner occupancy. Many prisons have a rapid turnover of prisoners due to increasing numbers on short term sentences. An increasing population, frequent overcrowding, a high turnover of prisoners and the need to hold prisoners near their homes and courts where possible combine to create substantial pressures on the prison estate, much of which has been in continual service since the 19th century. These pressures generate high demands on services such as water and heating supplies, and high levels of wear and tear on fixtures, as well as on the building fabric. Maintaining the estate in a secure and well-ordered condition under these circumstances requires effective planning and delivery of large scale maintenance projects, and responsive local maintenance teams to keep services and accommodation operational at all times.

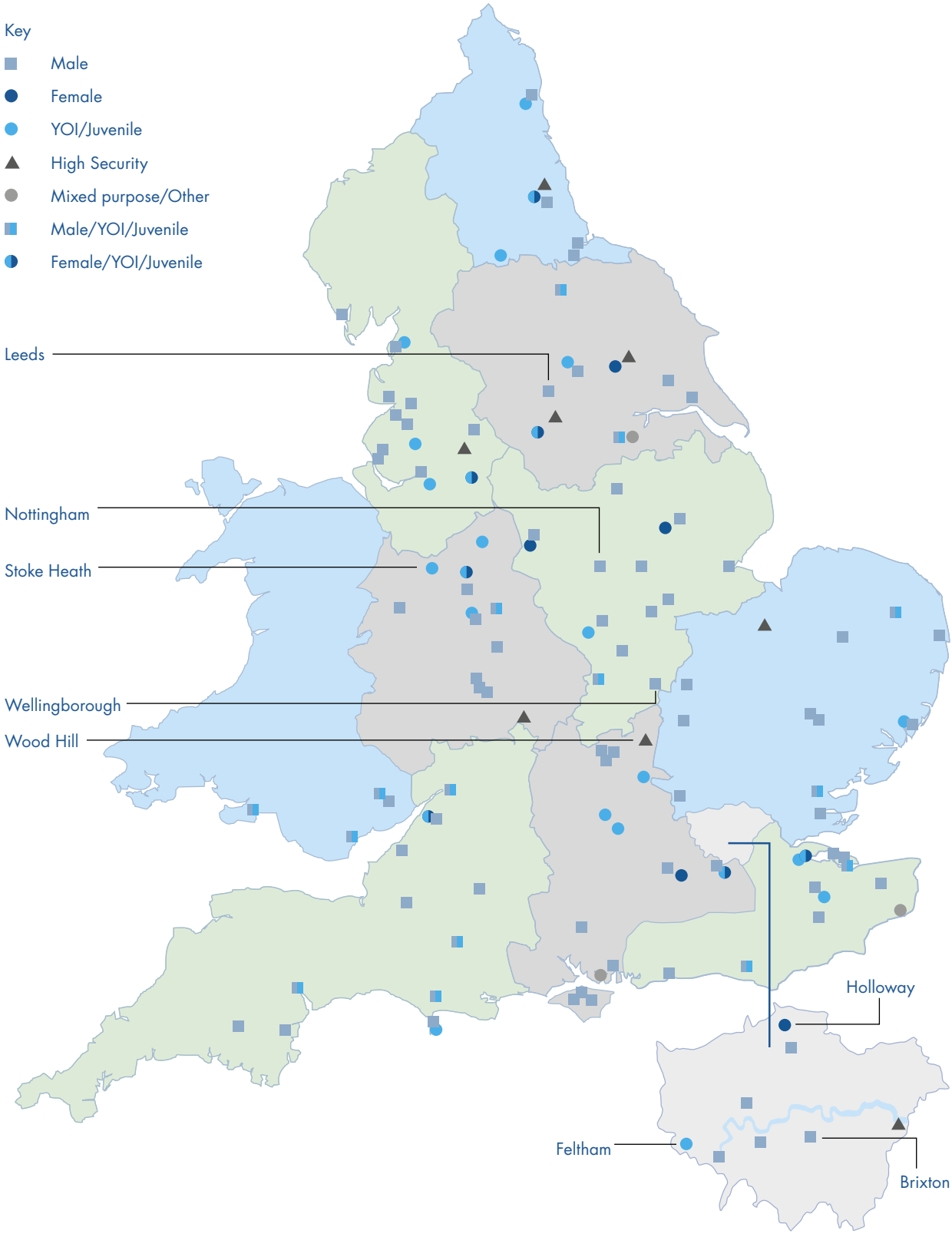
Expenditure on prison maintenance

1.12 In 2007-08, the Agency spent around £320 million maintaining the prison estate, down from an estimated £330 million in 2005-06 (in 2007-08 prices), despite an increasing prisoner population **(Figure 4 on page 14)**. The Agency was not able to provide precise figures of how much it spends in total on routine maintenance across the prison estate. We therefore calculated our own estimates by adding up the four main streams of expenditure on prison maintenance including:

- centrally allocated capital expenditure on major maintenance projects;
- centrally allocated resource expenditure on major maintenance projects;
- local expenditure on prison maintenance staff; and
- local expenditure on prison maintenance for contracts and materials.

3 See Figures 12 and 13, Appendix 2, for details of Prison Service's security categories, the different types of prison and the way some are organised into clusters.
4 These figures refer to the square metres of all prison buildings (not just prisoner accommodation), but excludes prison grounds.

1 Prison Service Areas and public sector prison locations in England and Wales



Source: HM Prison Service

NOTE

The Prison Service Areas will be replaced by new offender management regions from April 2009.

2 The age of buildings across the current prison estate

Age category of prisons	Number of prisons (by date of original opening of the prison)	Number of prisons (by majority of the buildings on the site)
To 1840	19	10
1840 to 1900	42	46
1901 – 1959	26	19
1960s	12	13
1970s	7	12
1980s	10	13
1990s	12	15
2000s	1	1

Source: National Audit Office analysis of Prison Service data

NOTE

The majority of buildings on site refers to the date of construction of the largest proportion of buildings in each prison. If, for example, a prison was originally opened in 1830 but was then mostly rebuilt in the 1960s, the date of opening no longer reflects the age of the majority of the buildings.

1.13 We agreed with the Agency that, for the purpose of this examination, prison maintenance is defined as: "Planned and reactive work carried out to ensure that prison establishments remain operational and provide a safe, secure and decent environment for staff, prisoners and visitors". Prison maintenance covers work undertaken to maintain the condition and functioning of existing building assets. It includes reconfiguration of existing buildings undertaken by prison based maintenance teams as well as refurbishment and rebuilding carried out by external contractors. It excludes, however, the creation of new capacity and estate work relating to service enhancements (such as education and healthcare) and the corresponding modifications and adaptations associated with these enhancements. **Figure 5 overleaf** shows the categories of maintenance work, and **Figure 6 overleaf** shows the standard types of planned and unplanned routine maintenance normally undertaken as part of effective asset management.

1.14 The main types of maintenance work carried out in a prison focus on upholding its standards on: security; prison capacity; staff and prisoner safety; compliance with legal standards and maintaining a healthy and decent living environment.

3 The range of prison sizes by prisoner number and density (2007-08)

	Number of prisons	Average number of prisoners	Maximum number of prisoners	Minimum number of prisoners	Average m^2 per prisoner	Maximum m^2 per prisoner	Minimum m^2 per prisoner
Less than 10,000 m^2	15	280	820	100	32	66	11
10,000 to 24,999 m^2	57	480	1,300	140	44	99	15
25,000 to 49,999 m^2	40	690	1,500	220	57	142	31
50,000 m^2 and over	9	970	1,400	250	77	244	36
No data for size	8	660	1,100	250	–	–	–
Overall	**129**	**570**	**1,500**	**100**	**46**	**244**	**11**

Source: National Audit Office of Prison Service Service Delivery Agreement Data

NOTES

Rounded to two significant figures.

Prison size refers to the square metres of all prison buildings (not just prisoner accommodation), but excludes prison grounds.

4 Changes in prisoner population and annual expenditure on prison maintenance (2007-08 prices)

	2005-06 £m	2006-07 £m	2007-08 £m
Total maintenance expenditure	**330**	**290**	**320**
Capital maintenance	210	150	140
Resource maintenance	37	56	66
Maintenance staff	55	58	77
Local maintenance	29	27	31
Prisoner population	**68,000**	**70,000**	**73,000**

Source: National Audit Office analysis of Prison Service Service Delivery Agreement Data

NOTES

1 Total figures are rounded to two significant figures.

2 Expenditures are deflated using the resource cost index of maintenance for non-housing building from the Department for Business, Enterprise and Regulatory Reform.

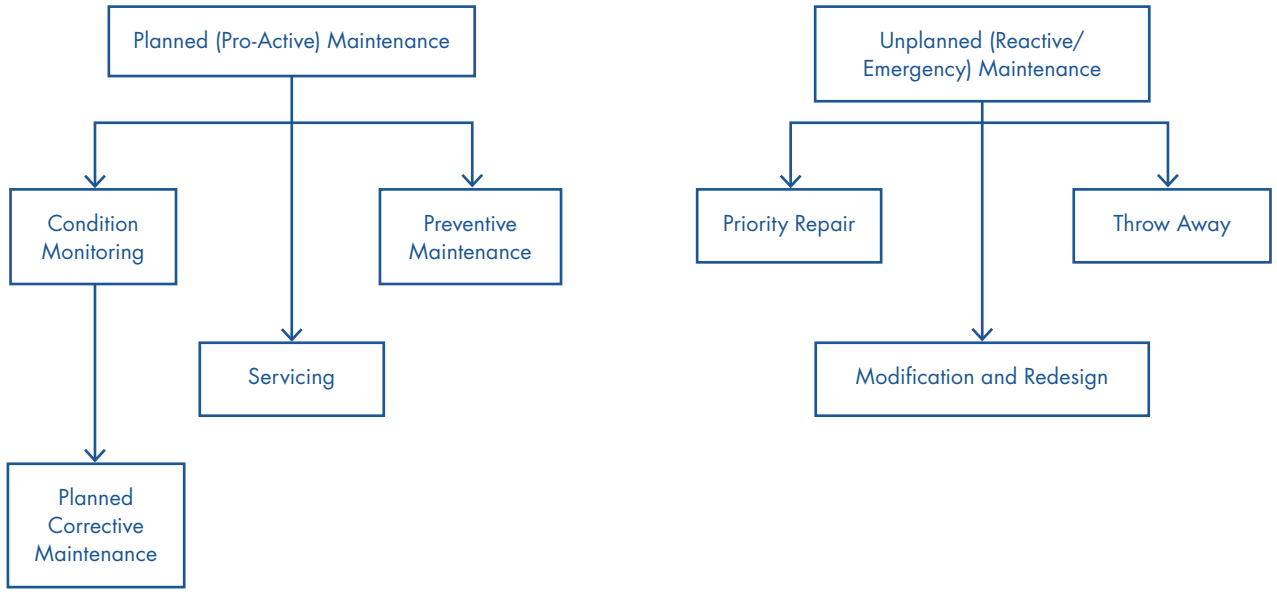
3 129 prisons in the Service Delivery Agreement framework are included. Data for other prison categories, for example, prison ships and private prisons, are excluded.

5 Main categories of prison maintenance

Maintenance Categories:	Examples:
Planned maintenance.	Preventive maintenance carried out at pre-set and agreed intervals.
Routine maintenance.	Reactive repairs due to vandalism or weather damage.
Minor refurbishment/ renewal.	Painting and decorating; refurbishing a kitchen.
Major refurbishment/ renewal.	Re-roofing an accommodation wing.
Replacing an asset at the end of its life.	Replacing a boiler or demolishing and rebuilding an accommodation wing.

Source: National Audit Office

6 Standard types of planned and unplanned routine maintenance



Source: Adapted from Figure 3.8.1, International Infrastructure Maintenance Manual, Version 2.0, 2002

1.15 The Agency's interim organisational structure for estate maintenance is set out in **Figure 7 overleaf**. This structure separates those tasked with building overall prison capacity from those who maintain and refurbish the existing estate. Key features of the current interim structure for estate maintenance include:

- overall planning and strategy for the prison estate which falls under the ownership of the Director of Estate Capacity;
- Area Estate Coordinators will report to the Directors of Offender Management who have overall responsibility for their Region including estate management and who in turn will report to the Chief Operating Officer;
- the estate management function, organisational, budget and reporting arrangements, which currently vary across the 12 Areas, will be subject to an estate management review, which will make recommendations as to the future estate management organisation to support the Directors of Offender Management;
- routine maintenance, major maintenance, refurbishment or replacement maintenance which have the following distinct delivery routes:
  - **routine maintenance** is managed and undertaken by estate managers and delivered by prison works teams supplemented, as required, by general and specialist maintenance contractors; and
  - **major maintenance, refurbishment and replacement** is managed and undertaken by external contractors providing project and cost management, design and construction services and is organised centrally by the Agency, rather than by the prisons or regions concerned.

Different delivery and funding arrangements for prison maintenance

1.16 Currently, the Agency has three different delivery and funding arrangements for prison maintenance, dependent upon the estimated value of the individual maintenance tasks.

- **Local: small scale routine maintenance** with an estimated cost of less than £5,000 is mainly carried out by prison works teams. External contractors may be brought in to carry out specialist tasks. The costs are met by the prison's own materials maintenance budget. Area Managers devolve a proportion of their Area's maintenance budget directly to the prison works teams or prison Governors from which the reactive and emergency maintenance work under the £5,000 limit is met.
- **Area**: Area funds meet the costs of **maintenance projects between £5,000 and £150,000**. These can be carried out by prison works estates' teams or external contractors. Area Managers devolve the responsibility and budget to meet these reactive and emergency bids to their Area Estate Coordinators.
- **National**: The Agency's central funds meet the costs of **large scale maintenance tasks** where these are estimated to exceed £150,000. These are managed by the Agency's Custodial Property Unit and carried out by external contractors.

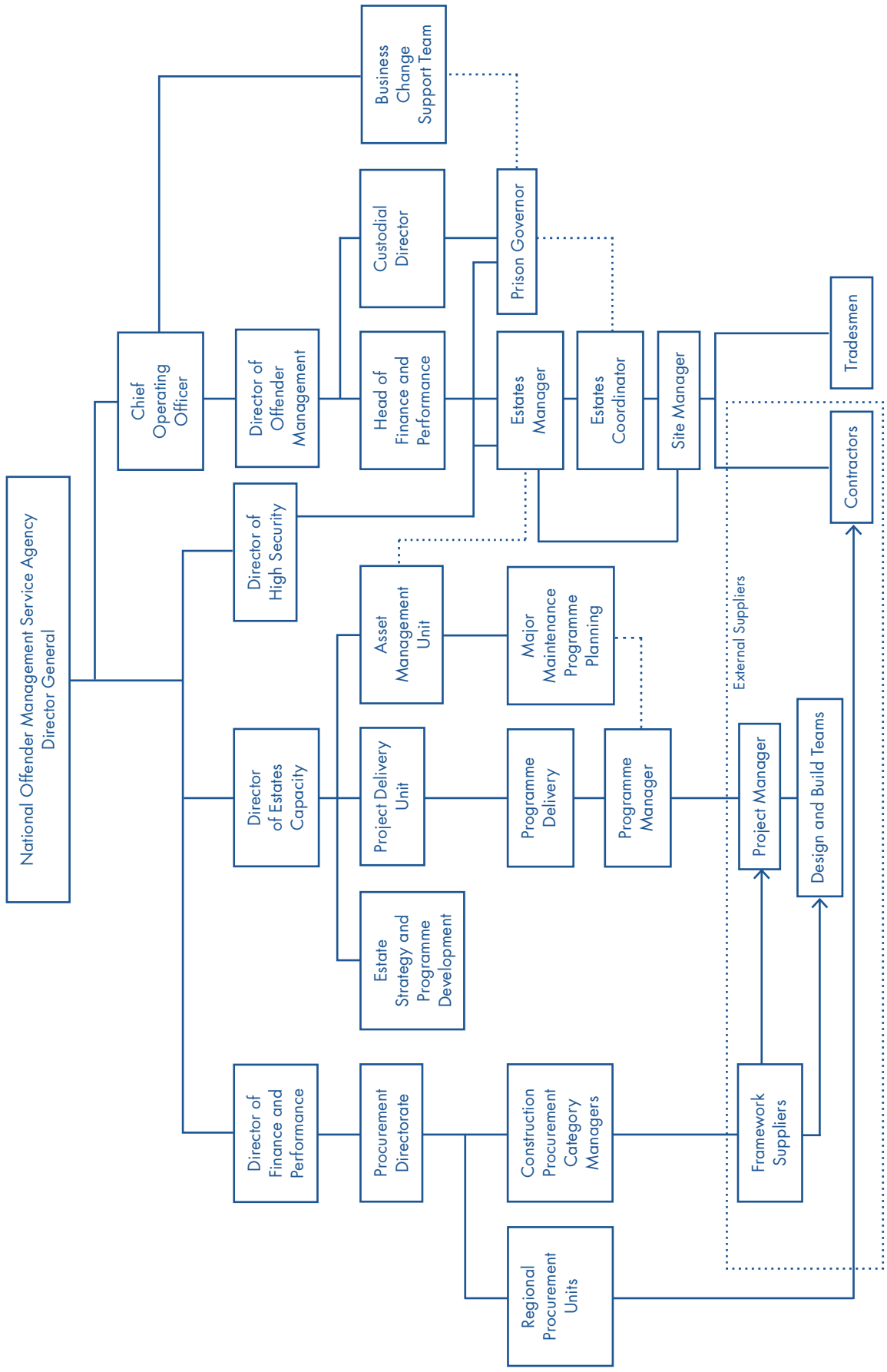
Scope of the National Audit Office examination

1.17 In the remainder of this report, we examine how the Agency can gain greater value for money from maintenance expenditure on the existing prison estate and achieve financial savings. We also examine how the Agency can improve how it measures and manages performance to help preserve and enhance the benefits from previous investment in the estate. Our examination focuses on the current estate only. We did not examine the separately funded programme to expand the prison estate to accommodate a growing prisoner population. We did not assess overall prison regimes or decency standards, as these are affected by a wider influence of factors such as prison operations, staffing and services for prisoners.

- Part 2 examines strategy and planning for estate maintenance;
- Part 3 examines procurement and delivery arrangements; and
- Part 4 examines performance measurement and management.

1.18 Our audit methodology is at Appendix 1. We employed chartered building surveyors Colliers CRE to accompany us on prison visits. We employed Arup to assist in the examination and to report on their benchmarking of the Agency's approach to maintaining the prison estate. Appendix 2 includes detailed tables underpinning the figures in the main body of the text. Appendix 3 summarises findings against relevant recommendations in previous National Audit Office reports. Appendix 4 includes the reports on each of our prison visits.

7 The Agency's organisational structure for estate maintenance



Source: The National Offender Management Service Executive Agency

PART TWO

Condition of the prison estate, strategy and planning

Our approach

2.1 We examined the current condition of the prison estate, to assess whether:

- the estate's current overall condition is sufficient to provide the required physical security, prisoner capacity, prisoner and staff safety, and compliance with the Agency's own requirements and legal standards;
- the estate's overall condition has improved or deteriorated in the past five years; and
- the Agency could improve value for money in maintaining the prison estate without adversely affecting its overall condition or ability to maintain physical security, accommodation capacity, staff and prisoner safety, and compliance with standards.

2.2 We visited eight prisons, held extensive discussions with central and front-line staff, analysed financial and performance data, and commissioned expert surveyor assessments (Appendix 1 and Appendix 4).

The current condition of the prison estate

2.3 In the prisons visited, we considered that the conditions of buildings, physical security features, and plant and equipment was generally either stable or had improved in recent years, through the annual investment in maintenance and close management of the estate. Appendix 4 sets out our findings on the condition of the estate in the prisons we visited. The staff we interviewed in these prisons also generally held the same view. The current condition of the prison estate in these locations appears to preserve physical security, maintain prisoner capacity, and maintain prisoner and staff safety in line with the Agency's statutory and legal standards. The Agency has not however carried out a recent condition survey of the estate.

2.4 We also found that there is a considerable amount of maintenance work required on the estate, covering both routine and major tasks and capital refurbishment and replacement work. Appendix 4 sets out our findings on the maintenance work required in the prisons we visited. Current approved maintenance tasks to be carried out over the period 2008-09 to 2012-13 have a total cost of £990 million, based on the individual cost estimates for each project.

2.5 Beyond the current maintenance tasks already approved, it is difficult to assess the volume and cost of further maintenance task requirements which will be identified over this period. The Agency does not routinely monitor the rate at which existing tasks are completed and removed from the total stock of approved maintenance work. The introduction of new prison capacity over this period will impact on the total level of maintenance required. Some of the work required may reduce, where parts of the estate in poor condition are demolished or closed down and replaced with new facilities, although new facilities also tend to have more sophisticated modern systems (for example, fire alarm systems) that can require significant maintenance.

The Agency's maintenance priorities

2.6 The Agency has clear and consistent priorities to drive maintenance investment decisions. These are aligned to its own standards for the prison estate. These standards differentiate between statutory, mandatory, advisory and 'for information' requirements. Individual maintenance tasks must be carried out in accordance with Prison Service Technical Order 5900 and 5901, and Standard 32 (an internal audit standard, which draws on the prison technical and performance standards).

2.7 The prisons we visited showed awareness of, and adherence to, the standards set for the prison estate. In these prisons, the staff did not feel particularly advantaged, or disadvantaged, in the allocation of maintenance funding. Our quantitative analysis of how local maintenance funding was directed to Areas and prisons indicated, however, that the High Security and East Midlands Areas have received considerably greater local maintenance funding per prisoner over the previous three years and the Wales, Yorkshire and South Central Areas received substantially less **(Figure 8)**. The variation could be explained by the historic pattern of funding local maintenance, but not by any other factor.

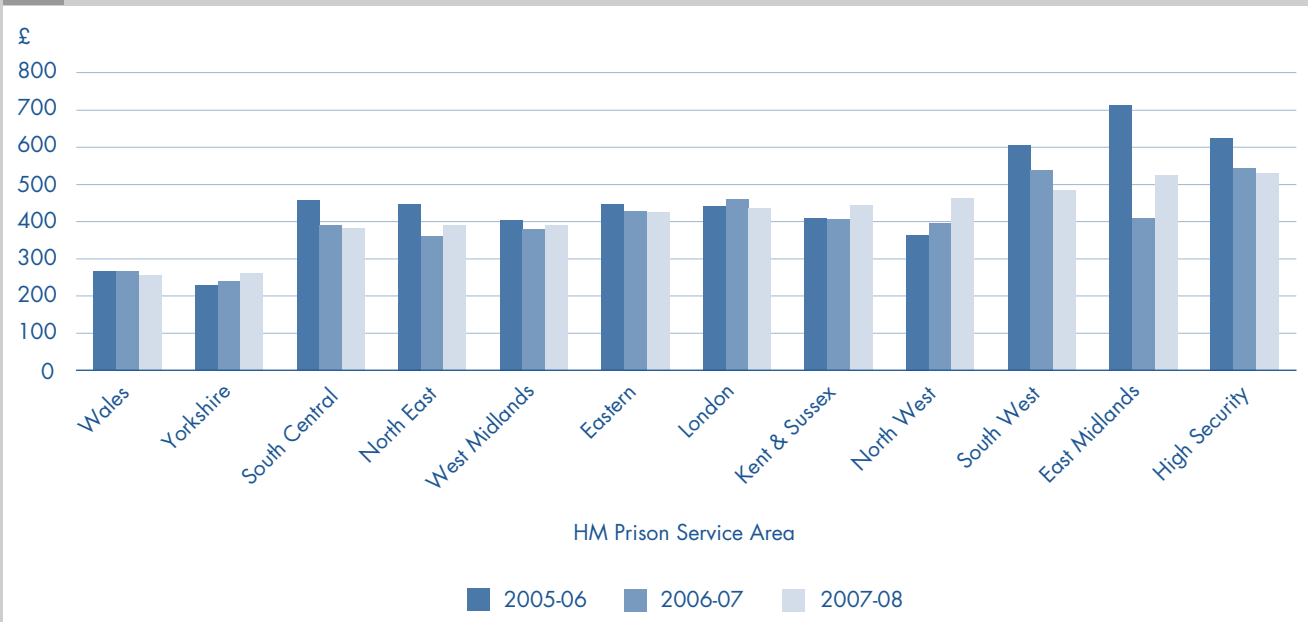
2.8 Small and medium scale maintenance work is funded from Areas using a largely historic distribution, rather than an annual evaluation of the level of such maintenance required. From the data available to analyse, we were unable to establish how much of the variation in local maintenance spending is due to real differences in maintenance requirements and how much is due to historic patterns of funding.

Prioritising funding for major maintenance tasks of £150,000 and over

2.9 To receive funding for major maintenance projects (valued at £150,000 or more), Area Estate Coordinators present the maintenance requirements for their Areas to the Custodial Property Unit and ultimately to the Agency's Property Maintenance Board. Potential projects are prioritised using risk assessments of loss of prisoner places, health and safety, security legal requirements and loss of essential facilities. This produces a ranked order of projects for each Area, to build up a draft national programme of major work for approval by the Property Maintenance Board.

2.10 Our analysis of budgets and planned expenditures indicated that substantially more projects are initially approved each year than there are funds to carry out. The Agency considers the draft national programme of major work to be a 'pecking order' from which some projects will have to move to later years should insufficient funds be available in the current year, or changes in the programme be necessary because of population pressures which limit the space available to decant prisoners temporarily. Although a degree of over-planning is essential, the overly high level and iterative process

8 Variation in local maintenance expenditure per prisoner across Areas between 2005-06 and 2007-08



Source: National Audit Office analysis of Prison Service data

NOTE

2005-06 and 2006-07 data for South West Area were only available for four out of its 13 prisons. See Figure 14, Appendix 2 for further details of local maintenance spend.

causes uncertainty for the prisons and for Area Estate Coordinators about when approved major maintenance projects will begin, the degree to which ongoing maintenance will continue to be needed on assets where a major maintenance project is deferred, and the costs of further remedial maintenance.

2.11 In planning major refurbishment projects, the Agency considers their likely economic life and maintenance requirements. It does not, however, have plans for maintaining individual plant and machinery and individual assets over their economic life. It therefore has a limited understanding of the most effective and economical time to switch from funding the ongoing servicing and repair of assets to funding their complete refurbishment or replacement. Depending on its relative sophistication compared with the original asset and the degree to which an existing asset can still be successfully 'sweated', a replacement asset may have both lower maintenance costs and lower operating costs. A comment we received at HM Young Offenders' Institution Stoke Heath illustrates this point:

"I don't know whether you're making the cost greater [by continuing to operate assets]; it's kind of like running an old car, it's never as efficient as it could be; you're more likely getting 84 to 86 per cent [efficiency] out of those boilers where these days you should be getting somewhere in the 96 to 98 per cent but they're working and until we're at that point where we're really suffering, we keep them maintained and look after them."

Identifying vandalism

2.12 In the prisons we visited, the Prison Officers and maintenance team members considered that cell 'smash-ups' and general vandalism by prisoners are one of the principal causes of reactive maintenance works. In some prisons, maintenance teams estimated that over half of their day to day work may be in response to vandalism. Their experience, however, conflicted with performance data produced at both Area and National level, which put the figure much lower. For example, at HM Young Offenders' Institution Stoke Heath, the maintenance team reported that maintenance work caused by prisoners accounted for between 50 to 75 per cent of reactive repairs, and that it delayed the completion of planned maintenance works. This figure contrasts with the Area or Service Delivery Agreement based figures which showed vandalism accounted for only 3.9 per cent of reactive repairs and national figures which showed vandalism accounted for 0.5 per cent of reactive repairs (Figure 15, Appendix 2).

2.13 We found that, when logging maintenance tasks on Planet FM (a computer-aided maintenance package which records maintenance work and repairs), the staff do not always fill in the fields recording the reason for work. The lack of reliable information means that the Prison Service is unable to identify:

- the overall amount and cost of maintenance work resulting from vandalism and disturbances by prisoners;
- those prisons with the highest disturbance and vandalism levels upon which to focus their efforts to reduce associated maintenance costs;
- where to allocate maintenance resources according to the greatest need; and
- prisons of similar size, age of buildings, capacity and category, with the lowest levels of vandalism and disturbances to identify and apply more widely good practice in controlling vandalism to reduce related maintenance costs.

Planned maintenance checks

2.14 The Agency recommends visual checks of assets in line with pre-set intervals set in manufacturers' maintenance requirements. In the prisons we visited, the maintenance teams regarded these as adding little value as:

- many planned inspections, which involve looking at equipment in operation, are only able to determine if it is operating normally at that time and give no predictive value on when or whether it may wear out or fail; or
- planned inspections are carried out on equipment that is in daily use and on equipment on which any failure would become apparent (for example, a failed pump, or a leaking heating pipe) and would be reported straightaway on Planet FM.

2.15 The Planet FM system provides flexibility in checks on plant and equipment. Maintenance teams which consider these checks to be unnecessary are encouraged to assess the opportunities and risks involved in deferring a visual check and can instead carry out more corrective or preventive work such as servicing, painting, or mechanical adjustments. Greater flexibility in carrying out visual checks would help staff resources to be correctly deployed, and therefore improve value for money.

2.16 The Prison Service is implementing Service Focussed Maintenance, which aims to give greater flexibility in visual checks, a greater emphasis on the effective use of resources, and enables maintenance teams to switch from non-statutory visual checks, using the time saved to carry out repairs arising from wear and tear or vandalism and preventive maintenance. The system allocates service priorities for inspection, corrective work and preventive actions: red for statutory; pink for security (mandatory); amber for operational (mandatory); and green for non-mandatory tasks. As at March 2009, Service Focussed Maintenance was in operation, or being introduced, at half the prisons in the estate, including four of those we visited. We found, however, that maintenance teams in some prisons we visited which had Service Focussed Maintenance were not yet making full use of the flexibility it gave. At HM Prison Nottingham, the maintenance team commented on the checks they were required to carry out on valves in service ducts, which they considered did not give an indicator of when the valves may break down. They reported:

"You go in, you can turn every one, you can open every one, … but you're not really seeing the travel, and you're not seeing the condition inside the valve … and then you're saying to yourself, 'well we've looked at them all these times but nobody's really ever seen inside', so you don't know when it's going to break down."

2.17 At HM Prison Wellingborough, the maintenance team reported that they received tickets from Planet FM to carry out visual checks on pipework each month. They commented:

"You don't really need monthly because you not going to do anything to it… And most of these things are visual checks, so you have a look, 'Yeah, it's the same thing. It's in bad condition.' And you put it down, 'It's in bad condition'. They know that it's in bad condition but it's going to take a lot to repair it and put it right. And it works, at the moment. Plus, them sort of buildings, they're utilised every day, so if there was anything to happen, they would be picked up on straight away."

2.18 At HM Young Offenders' Institution Feltham, the Estates Maintenance Team also concluded that some of the planned maintenance checks produced by Planet FM were of limited value. They are also operating Service Focussed Maintenance. They considered that this approach helped them to gain the greatest value from their limited resources and that the low priority maintenance checks that they did not carry out had an insignificant impact on the overall maintenance of the estate.

Joining up new capacity building and ongoing maintenance strategies

2.19 Alongside maintaining the current prison estate, the Prison Service is responsible for the maintenance of new prison estate and equipment created from the capacity building programme. The Agency and the Prison Service, however, do not yet have integrated strategies for maintenance of the existing estate, for refurbishment and rebuilding of existing capacity and for building new capacity. For major refurbishment projects, they calculate the additional maintenance works staff and additional funding that will be needed to cover future maintenance. The Prison Service does not however have a clear picture on how future maintenance expenditure requirements are likely to be affected by the current building programmes to increase prison capacity.

2.20 The Agency's Custodial Property Unit and Estate Planning and Development Unit, the Prison Service Operational Property Unit and Area estate management groups are involved in the capacity building programme. Although the Agency has not implemented an integrated management structure to make sure that all new capacity can be properly maintained, it does have a Business Change Support Team that supports delivery within prisons. The management organisations for building new capacity and for maintaining the existing estate do not yet however, work closely enough together.

2.21 The Prison Service through its Review of Works Departments carried out specific efficiency drives relating to maintenance beyond just cutting the budget. It reorganised and re-graded prison maintenance teams and re-aligned work to improve the maintenance regimes in prisons.

2.22 In the prisons we visited, the maintenance teams considered that they were not fully recognised as one of the major clients for building and refurbishment projects, and were not directly engaged in design and planning of new and refurbished buildings despite having subsequently to maintain these facilities. The Agency has made considerable efforts to involve maintenance teams in consultations. The Agency's Custodial Property Unit acts as the client representative with contractors. It assesses the maintenance requirements over the operational life of major projects, the additional funding required to cover ongoing maintenance and updates Planet FM to ensure that pre-planned maintenance reflects the new plant and building specifications.

Handing over refurbished and new buildings to prison maintenance teams

2.23 In 2008, the Agency introduced a project handover procedure, highlighting the importance of effective handovers. The procedure aims to strengthen handover arrangements between external contractors and prison works teams for all new capacity and major maintenance projects. The external contractors are required to remedy any reported defects before the handover is signed off. We found there had been examples of limited handover arrangements prior to the new procedures. In these cases, estate and site managers and prison works teams reported that they had taken over the maintenance responsibility for new or refurbished assets from contractors without adequate briefing on the:

- optimal operating conditions and working of plant and equipment;
- required servicing frequency and arrangements; and
- availability of spare parts.

2.24 The prison maintenance teams also found that plant and equipment installed by contractors may have met Prison Service targets on low initial purchase price, but did not lend themselves to low ongoing operating or maintenance costs. At HM Prison Nottingham, a member of the works team commented:

"…sometimes you're not getting the quality of materials either that you need. You're getting a poor quality material...you get taps that they're not really made for the job, because they're expensive to get the right ones, 'Oh well put that in and they will do'."

"It's a poorer quality equipment or material.... because they're looking at pennies again."

When handing over responsibility for maintenance of new capacity to prison works teams, external contractors are required to carry out a full transfer of knowledge, including appropriate familiarisation with the estate and practical guidance. Such handovers would help the maintenance teams develop a full understanding of the design, systems and construction techniques of new buildings to make sure they can deliver cost effective maintenance.

2.25 At HM Young Offenders' Institution Stoke Heath, construction of a new wing was completed in 2008 ('I' Wing). We found evidence of the need for remedial works on the new wing to address internal pipe leaks, cracked internal timber doors, broken external window vent openings and misaligned/rust-stained external metal wall cladding. A more effective handover to the Stoke Heath maintenance team could have highlighted the condition of parts of the new 'I' Wing and led to their remedy while contractors were still on site. The Agency considered that the new 'I' Wing had more defects than usual because it was a prototype rapid build unit and an untried design, a design they no longer intend to commission.

2.26 At HM Prison and Young Offenders' Institution Holloway, a member of the works team reported they were not consulted on refurbishment projects:

"If it's going to be the plumbing side, then one of the plumber guys should go and look and be involved in what they're putting in, so we can actually identify what it is. Not take a panel out and realise 'What is that? We've got to find that [part] now'."

PART THREE

Procurement of prison maintenance material and services

Prison maintenance works teams

3.1 Each prison has its own maintenance work team. Works teams are direct Prison Service employees, with the exception of the team at HM Prison Brixton who are employed by an external contractor carrying out maintenance work at the prison. For Prison Service employees, staffing budgets are held either by the prison Governor, or by the Area Estate Coordinator.

3.2 In our visits to prisons, we found that works teams were highly regarded by prison officers and other staff and by the prisoners. Particular areas of commendation were for the prompt response when reactive maintenance work was reported and for the quality of repair work they completed. We found that prison works team members often had a lengthy time in post (many with 20 or more years' service) and a minority were continuing to work past their official retirement age. The team members demonstrated a commitment to, and pride in, maintaining the prison buildings in good order and to keeping essential plant and equipment operational well beyond their standard life-spans through skilled or inventive on-going patch repairs and servicing.

Contracting out maintenance

3.3 In 2002, HM Prison Brixton contracted out its maintenance function following a competitive tender process and the works team are directly employed by the contractor (Carillion). The Prison Service received a single tender for this contract. HM Prison Brixton has limited governance arrangements over the contract and the Prison Service has not evaluated or benchmarked performance and costs. The Prison Service and HM Prison Brixton have not established fully the costs of contracting out the maintenance works.

Managing maintenance tasks

3.4 Once maintenance and repair work jobs are identified, either by the works team themselves or reported by prisoners or prison officers, the details of the work required are recorded on Planet FM via online terminals. The tasks are prioritised by prison-based works team managers on Planet FM and then automatically assigned to work team members for completion in accordance with their importance and urgency.

3.5 We found a high level of compliance with Planet FM, both by those reporting any maintenance work required and by the works team members. Maintenance work tasks were not carried out unless they had been logged on Planet FM. The system is fast and effective in communicating and assigning the new logged tasks. Both prison officers and works team staff were generally positive about the system's ability to contribute to maintaining the prison estate in good order and to ensure the complete and prompt recording of tasks, and that the tasks were assigned for completion in a rational and logical way.

3.6 At HM Prison Nottingham, a Prison Officer commented on Planet FM:

"I find when you use the internet it's a bit quicker. I think it must get sorted quicker if you email it than by phone, generally, I think. Because you get a log number as well, so you can go back and check on it. Well this morning I reported a broken sink. By lunch, it was fixed. That was quick!"

3.7 At HM Prison Wellingborough, a Prison Officer also commented on Planet FM:

"I mean Planet FM is, in my view, a good computer system. It not only records what work is required but it records what's been done. Next door is run by one of the maintenance managers, and I've been in there when stuff has come through and it's been dealt with straight away, and a docket has been given to one of the maintenance staff who has gone out and done it straight away. So you know the recording of the work coming in and the recording of the work done is invaluable really."

3.8 Some staff raised concerns over the availability of terminals to log the maintenance tasks and there had been initial unfamiliarity with operating the system, which led to prison officers in some locations, such as HM Young Offenders' Institution Feltham and HM Prison Brixton, calling the maintenance team with maintenance requirements directly rather than using Planet FM.

Standardising parts and materials used in maintenance

3.9 The Agency's Custodial Property Unit has developed a set of standard designs for new prison buildings, the majority of which are based on modular building systems. These buildings are capable of being constructed with standard materials, fixtures and fittings, and using standardised plant and equipment. These standard designs, however, are not being included as requirements for contractors when specifying an invitation to tender. In our visits to prisons, we found that new buildings such as adjacent prison wings did not have the same technical specifications, the same light fittings, heating plant, or pumping systems, or the same basic fixtures, such as wash basins and lavatories in cells. The only example of standardisation throughout the prison estate is for locks and locking systems, which are all purchased from one supplier.

3.10 At HM Prison Leeds, the maintenance team reported:

"Even with a new build programme; they'll come in [external contractors] and give you one new building and then a year or two later they'll come and give you another new build which will have different fixtures and fittings."

Further details are included in Appendix 4, HM Prison Leeds, paragraph 12-13.

3.11 At HM Prison and Young Offenders' Institution Holloway, a member of the works team reported:

"As far as electrical goes, we've had A, B, C and D [wings] all refurbished, and each block has got different types of lamps. It's like the plumbing side as well, where the contractors have come in and refurbished and rebuilt. All the taps and the fittings are different. So if something breaks down it's not a simple job of just taking the inserts out, because you need a special tool to take it out, and you need to order that insert for that tap. So they have to go through whatever channels they have to try and get that tap."

Further details are included in Appendix 4, HM Prison and Young Offenders' Institution Holloway, paragraph 11.

3.12 Once the Prison Service has taken on a newly built or refurbished wing or set of buildings for operation after handover, it is difficult to standardise materials, fixtures and fittings. Heating and pumping plant, for example, may have a long planned operational life and many plant rooms are built around the equipment in them. The opportunity to standardise materials, fixtures and plant is best taken at the initial design stages. The Agency has developed a range of technical specifications for common adoption in refurbishing the estate. These feature in its technical manuals and are raised in discussions with external contractors.

3.13 A wide variety of specifications and materials are nevertheless still used in refurbishments. Central management has commented that the shift towards performance specification, which leads to this variety of solutions, is driven by a need to ensure fair competition during the procurement of projects. Provided there is a clear case on the basis of whole lifecycle costing, putting the technical specifications in contracts and encouraging progressive standardisation across the estate offers the opportunity to deliver increasing financial savings and qualitative benefits, such as encouraging manufacturers not to discontinue the production of goods in common use across the prison estate, for which demand will continue over time. Some types of equipment such as boiler plant are, however, kept in use much longer than would be the case in commercial circumstances.

PART FOUR

Performance measurement and management

The Prison Service's Service Delivery Agreement framework for measuring performance in maintaining prisons

4.1 Site managers in prisons plan maintenance work in accordance with Service Delivery Agreements between the prison Governor and the Area Manager. As part of that agreement, each maintenance team is required to submit a range of data on its maintenance work to allow benchmarking of performance across and within Areas **(Figure 9)**.

4.2 The Service Delivery Agreement framework, as designed, provides an effective basis for monitoring performance. We found, however, that this framework has not been consistently or effectively implemented, and maintenance teams tend not to use these reports to monitor their own performance. In only one of the eight prisons visited in our examination was the Service Delivery Agreement being actively used by the Governor and works team to manage maintenance performance. In our quantitative analysis, many Areas had difficulties in providing data on their Service Delivery Agreement.

4.3 Planned maintenance has a Key Performance Target of 100 per cent of tasks to be completed within the targeted response time. Almost all prisons reported near-total achievement of this target. In practice, we found they did so only because tasks that had been issued to a member of the maintenance team, and therefore were scheduled to be carried out, were recorded in the return. Planned maintenance tasks that had not yet been issued to a member of the team, and therefore were not scheduled to be carried out, were not included in the data return. Excluding maintenance tasks that have not been completed when compiling data towards a maintenance target for the completion of tasks gives a poor indication of real performance.

4.4 Local reactive maintenance tasks have Key Performance Targets that are agreed at Governor and Area level. We found that performance against the local targets is not routinely monitored centrally and is not used to drive performance. The performance data we analysed were compiled using different techniques and definitions across Areas. It was not therefore possible to carry out any meaningful benchmarking of performance across, or within, Areas. The Agency is now addressing this inconsistency by moving to a single database in an enhanced Planet FM.

9 Data included in Service Delivery Agreements

Benchmarking:

- Cost of maintenance/number of prisoners
- Cost of maintenance/total Establishment budget
- Cost of maintenance per square metre
- Number and percentage of reactive/planned repairs completed within the appropriate response time (the completion of 100 per cent of planned maintenance is the Prison Service's stated Key Performance Target)
- Number of return visits
- Ratio of repairs/prisoners
- Number of vandalism repairs

Prison/Young Offenders Institution Condition Overview:

- The establishment's Category/Role
- The establishment's baseline Certified Normal Accommodation/Operational Capacity
- The establishment's total internal gross floor area/m^2/hectares of land
- The number of assets, as recorded by the Planet FM system
- The current replacement valuation of the building estate forming the establishment
- The current value of outstanding essential maintenance tasks identified within the Planet FM system

Source: National Audit Office analysis of Service Delivery Agreements

The Agency and the Prison Service's wider performance management systems

4.5 The Service Delivery Agreement is one part of a wider performance management framework. Additional measurement systems include:

- **Planet FM**: this is a computer-aided maintenance package which records maintenance work and repairs. Larger centrally-funded maintenance tasks with an estimated cost of £150,000 or more are recorded on the Work Package Management System, which is a sub-module of Planet FM. The Agency's Custodial Property Unit uses this system to assist in planning and managing major maintenance projects and to gain an overview of outstanding maintenance.
- **Incident Reporting System**: this system is intended for recording incidents of vandalism, along with an estimated cost for repair. We found little use of this system. Six Areas, for example, were not able to provide us with Service Delivery Agreement data on the number of vandalism repairs in 2007-08. (Figure 15, Appendix 2 highlights the discrepancies between evidence drawn from our case studies, data collected from the twelve Area's and centrally-provided data.)
- **Projects database**: a Microsoft Access database which records the progress of major maintenance projects.
- **The forward expenditure plan**: drawn from the projects database, it shows how much expenditure is planned on what major projects for the next five years.

4.6 We found that the databases are not joined up. Relevant information on a maintenance project is held in different databases but is not collected into one place to enable analysis of workload, trends and performance **(Figure 10 overleaf)**. Between them, these databases contain much of the information necessary to monitor the progress of maintenance work, allow forecasting of trends, and to identify examples of good practice or where improvements can be made. But as the data is not drawn off, combined and analysed, it is difficult for the Prison Service to assess how well prisons and major maintenance projects are performing. It is not possible, for example, to identify how many high priority major maintenance tasks have been completed or for how long uncompleted high priority tasks have remained outstanding, as the relevant information is either stored across different databases or is not retained on any system.

4.7 The Agency and the Prison Service currently have limited opportunities to analyse the performance of maintenance projects over time. The earliest data recorded in the systems listed in Figure 10 date back to 2003, but data for all systems is only available from 2006. The lack of time series data is a further barrier to the systematic analysis of performance.

Analysing the cost of maintenance over time

4.8 The Prison Service uses Planet FM for the day to day management of maintenance work across all prisons. The Agency uses the Work Package Management System to identify the large centrally-funded maintenance requirements (those over £150,000). While the Agency and the Prison Service hold archived Planet FM data, they do not maintain historic Work Package Management System records. They are not therefore able to analyse total historical expenditure on local maintenance work and centrally-funded projects. Maintenance tasks are funded from a variety of sources (local, national and from other bodies such as the Youth Justice Board). The Agency and the Prison Service do not aggregate funds spent from each of these revenue streams to identify the total amount spent on maintenance.

10 Key information on maintenance projects (shaded) and the database(s) on which it is kept

Information required to enable effective monitoring of performance on maintenance projects		Sources of data upon which the information is stored				
		Planet FM: all tasks (WPMS: tasks >£150k)[1]	Major Projects Database (tasks >£150k)[2]	Expenditure plan: tasks >£150k)[3]	Service Delivery Agreement data[4]	Incident Reporting System (tasks due to vandalism)
Individual maintenance projects	Project identifier (BPRN)		■	■		
	Date task identified	■				
	Business case cost		■			
	Final cost		■			
	Date task actually carried out		■			
	Date task expected to be carried out		■			
	Spending schedule over five years			■		
	Impact of project on prison capacity		■			
	Risks of project (e.g. to health and safety, security)	■				
	Priority of project (e.g. high, low)	■				
	Reason for task (e.g. vandalism)	■	■			
Prison	Number of maintenance tasks identified	■				
	Priority/risk of maintenance tasks	■				
	Estimated cost of maintenance tasks	■				■
	Budget for maintenance tasks	Information for total maintenance spending can be estimated using various data, but is not kept in database format				
	Number of maintenance tasks completed				■	
	Reason for maintenance tasks (for example, was it due to vandalism or was it planned work?)	There is no information kept at prison level for the reasons for maintenance tasks – Planet FM contains fields to allow staff to record the reason a task needs carrying out, but these are not filled in.				
	Number that met KPT targets				■	
	Number that did not meet KPT targets				■	
	Information on prison characteristics (to allow analysis of performance and benchmarking)				■	

Source: National Audit Office analysis

NOTES

1 Work Package Management System is a subset of Planet FM holding data for projects valued at £150,000 and above.

2 Project management tool for ongoing projects.

3 Historical and forward maintenance plan (CAPRO and MAINPRO).

4 Data HMPS produce for each prison, but which the NAO collected and collated for the first time.

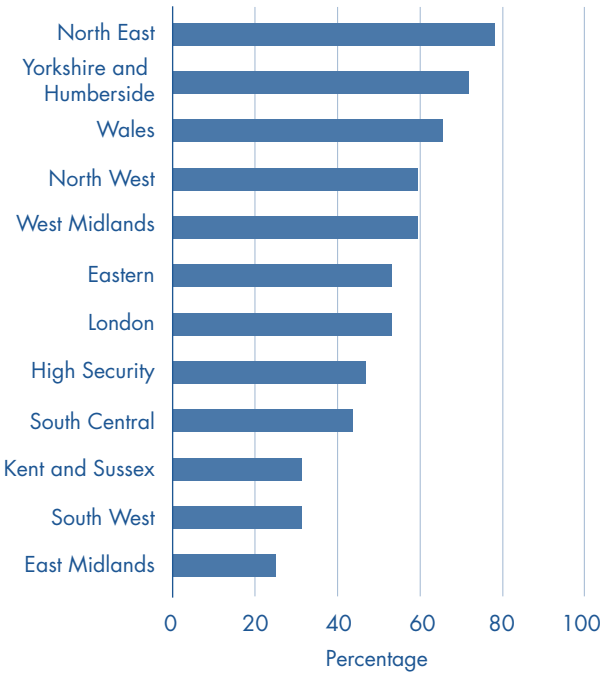
The consistency of performance measurement across Areas

4.9 Prison Service Areas are not able to provide complete data on their performance against Service Delivery Agreements **(Figure 11)**. Where data were provided, it was often not comparable across Areas due to differences in the way Areas compile the information. Areas had different interpretations on Service Delivery Agreements and reported that Service Delivery Agreement data were not used by management to monitor their performance. Areas gave low priority to producing the data and did not measure the relevant aspect of performance on maintenance.

4.10 It required considerable effort for Areas to produce and collate Service Delivery Agreement data (apart from Yorkshire and Humberside). The Agency does not have procedures to ensure that:

- Key Performance Targets are robust;
- data are consistently interpreted and reported in each prison and Area;
- data are regularly collected, locally, by Area and nationally; and
- the data are used to measure and benchmark performance within and between individual prisons and Areas to identify and share good practice and to address poor performance.

11 Percentage of complete Service Delivery Agreement data received from Prison Service Areas, as a percentage of data requested



Source: National Audit Office analysis of Prison Service Area responses

NOTE

Data refer to three years' Service Delivery Agreement data. For more detailed data, see Figure 16, Appendix 2.

Supporting continuous improvement in managing maintenance

4.11 For local maintenance tasks funded within prisons, all the staff in the prisons we visited were clear on their priorities: maintaining security; capacity; prison officer and prisoner safety; and meeting statutory and legislative standards. There were no performance frameworks in place, however, to enable them to assess how well they were meeting their priorities. Information was not collected centrally to allow trend analysis in delivery of priorities, or identify good or poor practice across Areas.

4.12 Planet FM contains fields to record the causes of maintenance when a task is logged, for example whether a task was needed because of vandalism or was due simply to wear and tear. These fields are not, however, being used consistently across Areas to make sure that the cause behind maintenance tasks (known as the 'defect code') is recorded. The Prison Service and the Agency consequently have limited understanding of the main factors causing maintenance work to be required, which reduces their ability to understand those factors within their control and to reduce the levels of damage to, and deterioration of, assets.

4.13 The Agency uses the projects database to monitor progress on major maintenance projects costing more than £150,000, yet the data fields it contains are poorly populated. Of 1,781 projects listed as complete in the ten years to 2008, only 121 of the most recent projects included a business case project cost and a final project cost. In 2008, the Prison Service made it compulsory for the business case field to be completed when registering projects on the database, yet of the 78 projects recorded as starting during 2008 only four had a business case cost recorded. So for the majority of major maintenance projects, the Agency is unable to evaluate whether they over- or under-spent against their original estimates. The consequence of this data gap is that the Agency was not able to identify which Areas were performing well and which were not, to analyse reasons for good performance and disseminate best practice, or to identify projects that were overshooting their budgets so as to take remedial action.

APPENDIX ONE

Audit methodology

1 The study team developed seven inter-related work stream methodologies, which were carried out between August and December 2008.

Work stream 1: Document review

2 We reviewed the Prison Service's prison maintenance strategy, prison maintenance standards and management reporting documents to identify baseline data and the planned strategies and developments surrounding the issue of maintenance of the prison estate. Our contractor, ARUP, reviewed the documents using a standardised pro-forma database.

Work stream 2: Benchmarking of performance and processes

3 We contracted ARUP to conduct a desktop-based benchmark of maintenance practices, processes and performance across other public and private sector institutions to establish maintenance performance indicators for all public sector prisons and to identify and explain variations in maintenance practice. ARUP analysed the documents collected and selected the most useful processes, management tools and frameworks and performance monitoring systems to produce a list of criteria for a 'best practice maintenance regime'.

Work stream 3: Quantitative data collection and analysis of national and local performance, cost and contextual data

4 We aimed to examine the levels of funding for prison maintenance over the past ten years, establish the levels of maintenance expenditure in different categories of the prison estate, reach a conclusion on the maintenance approach being adopted using cost-benefit analysis and examine whether maintenance tasks are carried out effectively and on time/budget.

5 To facilitate this analysis, we asked the Agency for the following data:

- financial investment in the prison estate for the past ten years;
- five-year forward programme of major maintenance projects and their database for monitoring major projects;
- breakdown of completed maintenance tasks over the last ten years;
- historic snapshots of Planet FM to show the amount of maintenance required and the types of maintenance tasks outstanding;
- statistics from Estates Property Development Unit on the prison estate, population figures, in-use/out-of-use capacity;
- statistics on major disturbances across the prison estate; and
- performance against Service Delivery Agreements and other internal performance statistics.

6 We faced significant challenges, however, both obtaining and using the data. The main problems we encountered were:

- difficulties in establishing how much money is spent on maintenance in prisons – funding for prison maintenance comes from a variety of sources, including local budgets, central budgets for major maintenance projects and external sources such as the Youth Justice Board. The Agency does not combine cost data from these different funding streams to produce a total figure for maintenance spending, so we produced our own estimates;
- difficulties reconciling data in different databases;

- a lack of time series data;
- a lack of comparable data across Areas – Areas monitored different things, and had different understandings of what data streams meant; and
- a lack of data quality controls.

7 We controlled for the above factors as much as possible when carrying out our analysis, ensuring that we only drew conclusions from the data where we felt the data was sufficiently accurate to allow us to do so. Specific issues pertinent to understanding data presented are detailed alongside the figures through the report in accompanying notes.

Work stream 4: 14 semi-structured interviews with Agency, Prison Service and Ministry of Justice staff

8 We interviewed 14 staff at local, Area and national levels from the Agency, the Prison Service and Ministry of Justice to gather a complete official view of the structure, funding and delivery of maintenance across the prison estate.

Work stream 5: Semi-structured interviews with other key stakeholders

9 We balanced the official viewpoint on the state of maintenance across the prison estate by seeking views from external stakeholders, Trades Unions and professional associations.

10 We conducted semi-structured interviews with the following stakeholders:

- HM Inspectorate of Prisons, to review maintenance issues and actions arising from Inspectorate visits and reports;
- Health and Safety Executive, to review how Health and Safety regulations impact on the maintenance of the prison estate; and
- Prison Officers' Association and Prison Governors' Association, to review the state of maintenance in prisons and how it impacts on operational issues.

Work stream 6: Workshops with all 12 Prison Service Area Estate Coordinators

11 Area Estate Coordinators are the senior officials responsible for the maintenance of prisons in each of the 12 Prison Service Areas. To obtain their views, we held two workshops with the 12 Area Estate Coordinators: one at the outset of main fieldwork to highlight specific maintenance issues and understand the context within which maintenance is delivered. The second workshop aimed to discuss the preliminary findings and recommendations.

Work stream 7: Eight evaluative case studies at individual prisons

12 We planned to visit a spectrum of prisons to identify the range of maintenance issues that occur, the impact they have on daily prison routines and the different solutions adopted across the prison estate to manage maintenance. During October and November 2008, we made eight one-day visits to our selected prisons:

- Brixton – male local;
- Feltham – male closed young offenders' institute;
- Holloway – female local (adult and young offenders' institute);
- Leeds – male local;
- Nottingham – male local;
- Stoke Heath – male closed young offenders' institute;
- Wellingborough – male category C; and
- Wood Hill – male local (high security).

13 On each visit, we conducted semi-structured interviews with the prison Governing Governor, the Area Manager, Site Manager and Estate Manager, as well as focus groups with local works teams, prison officers and prisoners to map out the local delivery structure for maintenance and any particular maintenance issues for either that specific prison or category of prison.

14 On each visit, we were accompanied by a Chartered Building Surveyor from Colliers CRE, with experience of working in prisons. Colliers assessed: (i) the condition of the building and plant; (ii) highlighted any outstanding maintenance issues; and (iii) compared maintenance requirements, assessments and work with 'good practice'.

APPENDIX TWO

Supporting tables and notes

12 The Prison Service's security categories for prisoners and the different types of prisons

Adult prisoners: Those aged 21 or over. Adult prisoners are given a security categorisation based on a combination of the type of crime committed, the length of sentence, the likelihood of escape, and the danger to the public if they did escape. The four categories are:

- **Category A:** Prisoners whose escape would be highly dangerous to the public or national security.
- **Category B:** Prisoners who do not require maximum security, but for whom escape needs to be made very difficult.
- **Category C:** Prisoners who cannot be trusted in open conditions, but who are unlikely to try to escape.
- **Category D:** Prisoners who can be trusted not to try to escape.

Young Offenders: Those aged 18 to 20 years.

Juveniles: Those aged 15 to 17 years.

Dispersal prisons: Are designed to disperse Category A prisoners who present control difficulties around a number of different prisons rather than concentrate them in one high security establishment.

Local prisons: Mainly hold prisoners on remand, those on short-term sentences and those at the start of their custody and sentenced from local courts.

Semi open and open prisons: Have no perimeter or fence walls and security is mainly limited to locked doors.

Source: Prison Service

13 The Prison Service has nine prisons in five clusters for reporting purposes (125 reporting units out of 129 prisons)

Prisons	Cluster	Number of prisons in the cluster
Sheppey Cluster	1	3
Brockhill & Hewell Grange	1	2
Grendon & Spring Hill	1	2
Moorland	1	2
Buckley Hall	1	0
Total	**5**	**9**
Reporting total	**125**	**129**

Source: http://www.hmprisonservice.gov.uk/assets/documents/10003F1DInternet_Ratings_Qtr1_08-09.pdf

14 Variation in local maintenance spend per prisoner (items less than £5,000) between Prison Service Areas (2005-06 to 2007-08)

	Total number of prisoners			Local maintenance spend – £ million at 2007-08 prices			Total local maintenance spend per prisoner – 2007-08 prices			Difference from average (£)		
	2005-06	2006-07	2007-08	2005-06 £m	2006-07 £m	2007-08 £m	2005-06 £	2006-07 £	2007-08 £	2005-06 £	2006-07 £	2007-08 £
Eastern	6,300	6,300	6,600	2.8	2.7	2.8	440	430	430	-10	30	10
East Midlands	7,700	8,400	9,000	5.5	3.4	4.7	700	410	520	250	10	100
High Security	5,600	5,800	5,900	3.5	3.1	3.1	620	540	530	170	140	110
Kent & Sussex	5,100	5,100	5,100	2.1	2.1	2.3	400	410	440	-50	10	20
London	5,700	5,700	5,800	2.5	2.6	2.5	440	460	440	-10	60	20
North East	3,800	4,100	4,100	1.7	1.5	1.6	440	360	390	-10	-40	-30
North West	7,600	8,100	8,700	2.8	3.2	4.1	360	400	460	-90	0	40
South Central	6,800	7,100	7,100	3.1	2.8	2.7	460	390	380	10	-10	-40
South West	1,600	1,700	6,000	1.0	0.9	2.9	600	530	480	150	130	60
Wales	1,600	1,600	1,600	0.4	0.4	0.4	270	270	260	-180	-130	-160
West Midlands	6,500	6,600	6,700	2.6	2.5	2.6	400	380	390	-50	-20	-30
Yorkshire & Humberside	6,100	6,300	6,600	1.4	1.5	1.7	230	240	260	-220	-160	-160
Total (SDA)	64,400	66,800	73,200	29.3	26.8	31.5	450	400	420			

Source: National Audit Office analysis of Prison Service data

NOTES

The actual number of prisoners in the South West Area was 5,938 in 2005-06 and 5,846 in 2006-07. South West Area supplied local maintenance expenditure figures for only four of the 13 prisons for these two years. The table above adjusts the South West Area prison population to those prisons for which we received expenditure data only.

Figures are rounded to two significant figures.

15 Calculation of vandalism costs

According to the Service Delivery Agreement data, there were 12,585 vandalism repairs completed across six different Areas in 2007-08. The other six Areas did not provide any Service Delivery Agreement data on the number of vandalism repairs in that year.

The total for each of the 12 Areas that provided Service Delivery Agreement figures for the number of reactive repairs carried out in their prisons in 2007-08 was 678,175. Around 92 per cent (621,528) were completed within the appropriate response code, and 8.4 per cent were not completed within the appropriate response code (56,647).

Taking data for the six Areas that provided it for both reactive and vandalism repairs, the total number of reactive repairs (both carried out and not carried out in the appropriate response code) is 325,310. If we assume that vandalism repairs would form part of these reactive repairs, then with vandalism repairs at 12,585 that gives a percentage of reactive repairs being due to vandalism of 3.9 per cent.

Data provided from the Prison Service's central database via the Incident Reporting System for 2007-08 shows 3,565 disturbances recorded (with a cost greater than zero) across all Service Delivery Agreement prisons. With 678,175 reactive repairs carried out across the Service Delivery Agreement network in 2007-08, if we divide one by the other this implies that only 0.53 per cent of reactive repairs could have been instigated by vandalism, riots or other disturbances.

Source: National Audit Office analysis of Prison Service Data

16 Prison Service Areas' response to requests for Service Delivery Agreement data

Region	Total number of discrete requests made for Service Delivery Agreement (SDA) data	Number of complete SDA data sets received	Number of partial SDA data sets received	Number of SDA data sets received with no data	% of complete SDA data sets received	% of partial SDA data sets received	% of SDA data sets received with no data
East Midlands	32	8	15	9	25	47	28
Eastern	32	17	10	5	53	31	16
High Security	32	15	15	2	47	47	6
Kent & Sussex	32	10	19	3	31	59	9
London	32	17	12	3	53	38	9
North East	32	25	2	5	78	6	16
North West	32	19	13	0	59	41	0
South Central	32	14	17	1	44	53	3
South West	32	10	18	4	31	56	13
Wales	32	21	5	6	66	16	19
West Midlands	32	19	8	5	59	25	16
Yorkshire & Humberside	32	23	3	6	72	9	19
	384	198	137	49	52	36	13

Source: National Audit Office analysis of Prison Service data

APPENDIX THREE

Recommendations in previous National Audit Office reports

1 We examined the degree to which the Agency and the Prison Service's current practice has responded to previous National Audit Office report recommendations, where these apply to prison maintenance issues.

'The procurement of goods and services by HM Prison Service' (HC 943, 2007-08)

2 In this report on procurement, we found that some Prison Service staff did not adhere to the centralised procurement approach and were not using the online catalogues. A substantial number of purchases were not made in this way, as staff believed their own contractual arrangements offered better value for money than those negotiated by central procurement.

3 The Prison Service has introduced framework agreements with 'approved contractors' for major rebuild, refurbishment or maintenance projects without the need for a full tender for every individual project. Of the 14 companies originally appointed, three companies received over half the total value of contracts awarded by the Prison Service (over £2.3 billion).

Original recommendation	Current finding	Additional conclusion
Recommendation 1: 'The Procurement Group should provide a table of up to 10 key pieces of information on its performance to all prisons that will improve prison staff's understanding of the benefits of centralised procurement and enable prison staff to understand how they can help to generate savings.'	Some prison works teams have criticised the centralised procurement system for goods. They have pointed to the relatively high costs of products shown on the online catalogues compared to staff understanding of prices from local suppliers, the limited choice of products available, extended waiting times for delivery, inaccurate deliveries and the inadequate quality of products once received.	As the current finding mirrors that from our 2008 report, this reinforces the importance of the original recommendation and to guarantee that centralised procurement is demonstrably providing financial and qualitative benefits to the Prison Service. It is also important to address the widely varying understanding of the centralised procurement system within prisons and the degree of flexibility which prison staff are allowed. This includes procurement from local suppliers using the Prison Service credit card facility where it is demonstrably cheaper. The Prison Service should evaluate the operation of its centralised procurement system to assess the degree to which this is delivering financial savings and qualitative improvements over local purchasing. It should also assess the potential to increase the efficiency of centralised procurement through use of lower cost suppliers and products and tighter delivery schedules.

Original recommendation	Current finding	Additional conclusion
Recommendation 7: 'The Prison Service should review its contractual processes so that all contracts include references to the need for suppliers to have processes for continuous improvement and to monitor continuously scope for identifying savings.'	Within prisons, there are substantive concerns over external contracts. Specifically, these covered their value for money, cost competitiveness and price inflation, the quality of work completed and hand over arrangements for ongoing maintenance requirements. For example, the Prison Service's maintenance contracts with alarm system providers give the provider the sole ownership of access codes. These lock the Prison Service into contracts with providers that are not cost efficient. Prison works teams consider there is considerable scope for savings.	The current finding reinforces the need for a review of external contracts to make sure they encourage continuous improvement, a high degree of competition and the scope for savings in line with the above recommendation. Evidence drawn from our visits to prisons highlights the potential value for money improvements that could be achieved.

National Offender Management Service: Dealing with increased numbers in custody (HC 458, 2005-06)

4 In this report on dealing with increased numbers in custody, and providing additional accommodation, we found that contractors experienced difficulties in getting security clearance from each prison.

Original recommendation	Current finding	Additional conclusion
Recommendation f: 'Prison security requirements should be revised so that when a contractor's staff obtain security clearance at one prison they do not have to go through the same procedures at any subsequent prisons.'	Many prisons carry out clearance on contractor staff who have previously received security clearance to work on other prison sites. Security clearance procedures are taking substantially longer than they should. HM Prison Nottingham has implemented fast and effective security clearance by bringing the contract staff into the work department to help them complete the security clearance forms, ensuring they had the correct documentation and sending off the forms and documentation straight away.	Our current findings indicate that delays and costs associated with prison specific security clearance still remain in some locations. This emphasizes the importance of the original recommendation.

APPENDIX FOUR

Reports on prisons visited

HM Prison Brixton

Site Address: HM Prison Brixton, Jebb Avenue, Brixton, London SW2 5XF

Date of Visit: 20 October 2008

Brief description

1 Brixton Prison dates back to 1819 and comprises a series of brick built cell blocks and administrative facilities laid across a nine acre site. Buildings are generally of brick construction with either slate roof coverings or, where roof replacement has been carried out, profile steel sheet roofing. The roundhouse section of the prison we understand is Grade II listed and this in turn has implications on the maintenance of the remainder of the estate.

2 The day-to-day maintenance and facilities management of the prison is dealt by Carillion plc with no direct employed Prison Service staff.

Building structure, fabric and services

3 From our limited visual inspection, the buildings generally appear weathertight, structurally sound with no evidence of any substantial subsidence or structural movement. There are a number of issues relating to blocked gutters. However, these are not significant in consideration of the overall prison.

4 Internally, areas appear reasonably well decorated with an ongoing decorating programme. Areas such as communal showers within the cell wing areas are heavily used and require substantial ongoing maintenance in particular to drainage and adjoining floor areas.

5 We understand that all cells and associated areas are fully operational with very little, if any, backlog maintenance. However, there is substantial future maintenance planned which, in our opinion must be carried out if the estate is to be maintained at current levels.

Other related matters

6 From our discussions with maintenance staff, we believe that all services are generally operational. However, we did identify issues which give cause for concern.

7 We were advised that the full CCTV survey of the drainage system, carried out for the whole of the Brixton establishment, has identified several areas where original drainage runs are either in poor condition or a state of partial collapse allowing sewage to leak into the surrounding ground. If this is not rectified, this can clearly lead to issues of contamination and also the potential to erode ground bearing strata leading to subsidence of the building. We were not able to assess the full extent but would anticipate a budget cost of £30-50 per metre run of drainage.

8 The fire alarm installations to several of the cell wings are of an age such that they are almost unmaintainable and bordering on non-compliance with statutory requirements. Further, many of the alarm systems are 'closed protocol' and, as such, are only maintainable by the original manufacturer/installer. This can clearly lead to issues if the original contractor/installer ceases trading and also precludes any competitiveness in pricing of maintenance contracts.

9 We were advised that, whilst the main boiler plant had been replaced in several locations around the site, associated plant and equipment – for example, pump sets – had not been changed. As a consequence, boilers were not performing efficiently and there were difficulties in achieving both hot water and heating simultaneously during the winter months. Costs in the region of £5,000-7,000 per pump set should be anticipated.

10 Drainage to the shower areas within the cell wings was highlighted as a key issue, constant leaks from drainage in these locations was leading to saturation of the fabric both internally and externally which, in turn, was leading to premature deterioration of the fabric of the building.

11 Asbestos within one of the service ducts is in a poor condition. However, this has not yet been removed. As a consequence, maintenance operations cannot be carried out within the duct. This does not cause any immediate issues as the duct only conveys pipe work and cabling. However, should a failure occur to any service media therein, repair costs would be significantly increased.

HM Young Offenders' Institution Feltham

Site Address: HM Young Offenders, Institution and Remand Centre, Feltham, Bedfont Road, Middlesex TW13 4ND

Date of Visit: 28 November 2008

Brief description

1 The prison was originally constructed in 1854 as an industrial school and taken over in 1910 by the Prison Commissioners as a borstal institution. The facility was extensively reconstructed during the 1980s and opened as a remand centre in March 1988. The cell blocks comprise concrete frames with external brick walls under mono pitch shingle covered roofs. Ancillary buildings are generally of concrete-framed construction with external brick walls under felt-covered roofs.

2 Daily reactive maintenance and some planned maintenance work are undertaken by the on-site works teams employed directly by the Prison Service.

Building structure, fabric and services

3 From our limited visual inspection, the buildings generally appear weathertight, structurally sound with no evidence of any substantial subsidence or structural movement.

4 Internally, areas appear reasonably well decorated with an ongoing decorating programme. Corridor areas, showers and other communal areas within the prison are heavily used and require ongoing maintenance.

5 Several of the prison cells are reported as being unserviceable due to mould growth. We believe this in part to be as a consequence of inadequate ventilation which we understand is to be addressed in the medium term (Planned for years 2010 to 2011).

6 The shower blocks are in a particularly poor condition in several locations. However, we are advised that there is an established upgrade programme for these areas.

7 Substantial capital maintenance works have been carried out recently to the heating system and drainage installation of the estate reducing the planned programme of maintenance.

8 Both the maintenance department and the Prison Governor are reporting no backlog maintenance to the estate other than works identified in the planned maintenance programme. From our limited inspection, we would concur with this view.

Other related matters

9 Due to the age and volatility of the young offenders within the establishment, vandalism and cell 'smash ups' accounts for approximately 40 per cent of the overall non-planned maintenance.

10 As with other prison establishments we visited, alarm systems are 'closed protocol' precluding the use of any maintenance contractor other than the original installer.

11 Following discussions with the Estate Maintenance Management Team, they have no knowledge of PPC 2000 agreements and have no access. However, capital projects are often carried out on the estate using this agreement, the perceived costs of which are often well in excess of those that the local maintenance team could have procured under a local tendering process.

12 Unlike other prisons visited, the Estates Maintenance Management Team, whilst achieving 100 per cent performance against the Key Performance Indicators for the works carried out, have taken the view that some of the work items produced by Planet FM are of limited value and they operate a priority system. We believe this to be a sensible approach bearing in mind limited resources. Our opinion is that the work items not carried out have a very insignificant impact on the overall maintenance of the estate.

13 As with other prison establishments, there did not appear to be any standardisation or coordination of building components or service components.

HM Prison and Young Offenders' Institution Holloway

Site Address: HM Prison and Young Offenders' Institution Holloway, Parkhurst Road, London N7 0NU

Date of Visit: 30 October 2008

Brief description

1 The prison was originally constructed in 1852 as a mixed prison and became a women's prison from 1902. Between 1971 and 1985, the original prison was completely demolished and rebuilt on a 'hospital style' layout. At the time of our inspection, 'C1' Wing was closed following major refurbishment and construction of a new day care centre. Buildings are generally of concrete-framed construction with brick external walls incorporating feature timber clad panels generally below flat roofs, presumably with felt and asphalt coverings.

2 Daily reactive maintenance and some planned maintenance work, including minor projects, are undertaken by the on-site works team employed directly by the Prison Service; the majority of which have long service with a prison works team.

Building structure, fabric and services

3 From our limited visual inspection, the buildings are generally weathertight (notwithstanding reported roof leaks) and structurally sound with no evidence of any significant subsidence or structural movement. The buildings are generally well maintained given the available resources with reported deficiencies generally relating to work procurement issues and non-building related factors, such as prisoner behaviour. In our opinion, the prison is generally in fair condition that reflects the buildings' age and use. However, it is our opinion that significant capital investment is now required to replace original building elements reaching the end of their serviceable lifespan, such as roof coverings, windows, electrical distribution boards, ventilation and heating systems.

4 Replacement of original boiler plant and associated pipework providing heating and hot water is planned for 2009. All original installed plant has now reached or exceeded their expected serviceable lifespan as evidenced by corroded heating pipework adjacent to the swimming pool building. In addition, heating controls are very poor, with many building users complaining of being too hot or too cold.

5 Original asphalt-covered flat roofs are suffering localised water ingress with reported roof leaks to 'C' and 'D' Wings. This is another example of original installed finishes reaching the end of their serviceable lifespan requiring wholesale replacement rather than ongoing patch repairs.

6 The original steel-framed external windows are reported to provide insufficient ventilation with window repairs required to adequately secure opening windows in a closed position. External wall vents have been retrospectively installed to alleviate cell ventilation problems, but subsequently proven to have had little or no effect. This problem is currently exacerbated by inadequate heating control.

7 Buildings are generally in poor external decorative condition with consequential timber decay noted to external timber cladding panels, albeit to small localised areas.

8 Shower and bathroom upgrades have been requested to address inadequate ventilation issues and associated deterioration of finishes. This appears to be a common maintenance issue across the prison estate.

9 Asbestos is reported to be present within water tank rooms, lift motor plant rooms and roof voids. The asbestos condition is unknown although reported to be confirmed in the site's Asbestos Register. The presence of asbestos is not surprising given the buildings' age of construction.

Other related matters

10 Cell 'smash-ups' and general vandalism by prisoners are the principal cause of reactive maintenance works. In our opinion, this work does not account for the same proportion of total workload as other prison work teams visited.

11 Use of non-standardised materials procured centrally with minimum materials stored on site was generally cited to delay completion of maintenance works due to extended material procurement and site delivery timescales.

12 Management of the prison's maintenance budget has been devolved locally to the prison with maintenance works primarily focussed on priority of need rather than cost. The Prison Finance Director reported that works undertaken by centrally procured contractors via the 'IPROC' system (internet procurement) are generally 20 per cent higher than locally procured contractors, although we had no sight of documentation to support this claim.

HM Prison Leeds

Site Address: HM Prison Leeds, 2 Gloucester Terrace, Stanningley Road, Leeds LS12 2TJ

Date of Visit: 15 October 2008

Brief description

1 The prison was originally built in 1847 providing four wings radiating from a central hub. An additional two wings were constructed in the 1990s with a new entrance gate facility added in 2002. At the time of our inspection, 'B' Wing was closed and undergoing major refurbishment. Buildings are of traditional loadbearing masonry and structural framed construction with external brick and stone masonry walls under predominantly pitched slate covered roofs.

2 The prison has Grade II Listed Building status, which does impact upon maintenance of the original Victorian buildings in terms of additional cost and delays due to statutory consultations and approvals prior to commencement of proposed works.

Building structure, fabric and services

3 From our limited visual inspection, the buildings are generally weathertight (notwithstanding reported roof leaks) and structurally sound with no evidence of any significant subsidence or structural movement. The buildings are generally well maintained given the available resources with reported deficiencies generally relating to work procurement issues and non-building related factors, such as prisoner behaviour. In our opinion, the prison is generally in fair to good condition that reflects the buildings' age and use.

4 The most significant reported maintenance issue is roof water ingress, particularly to 'C', 'D' and 'A1' Wing roofs. We understand all 'C' Wing roof slate coverings are anticipated to be replaced in 2009 subject to funding. It is also reported that roof parapet gutters are rarely cleaned due to restrictive access requiring specialist access equipment (a 'cherry-picker'). Therefore, we suspect this may be a contributory factor to the noted 'C' Wing roof water ingress.

5 We are informed that brown asbestos debris has accumulated within the 'C' Wing roof void following previous removal of water tanks and associated pipework. The presence and location of this asbestos is reportedly confirmed in the prison's Asbestos Register and a specialist contractor's quote of approximately £250,000 for its removal has been obtained. The risk associated with this asbestos has been assessed by the Prison Service as relatively low given that it is within a sealed roof void area requiring little maintenance access. It is our opinion this asbestos should be removed as soon as practicable, as we would normally expect this type of loose and friable asbestos to be removed. Removal of this asbestos will have to be carried out prior to undertaking any planned slate roof recovering works, albeit at considerable additional cost and requiring decanting of 'C' Wing prisoners for an extended period.

6 The Prison Works Department has reported extensive corrosion of concealed pipework serving shower areas immediately located off prison wing landings. This is a prime example of the inability, despite best endeavours to adequately maintain services due to concealment of pipework for security and safety reasons. However, there is no reported or visual evidence of defective services and we are informed that all necessary services inspections are carried out in compliance with statutory requirements.

7 Mechanical ventilation to shower areas is reported to be inadequate causing excessive condensation and moisture leading to deterioration of finishes and corrosion of concealed pipework. This is a likely result of shower and associated ventilation provision not being upgraded sufficiently over time to serve the increasing prison population.

8 Heating controls are generally considered inadequate by the Prison Officers.

Other related matters

9 Cell 'smash-ups' and general vandalism by prisoners are reported to be the principal cause of reactive maintenance works and to account for a major proportion of the work team's total workload.

10 The visitors' room is deemed by staff as being not fit for purpose. The external walls are outside the prison's perimeter security walls and highlight the design problems encountered with meeting modern operational prison needs within the confines of a listed Victorian prison. The Governing Governor commented that no 'future-proofing' works had been carried out as part of the 'B' Wing refurbishment works, such as installation of IT data systems within prisoner cells to meet likely future computer access needs.

11 The prison policy of only works team staff being allowed to re-set electrical trip switches can cause operational difficulties due to prisoner disruptions and subsequent cell 'smash-ups' and vandalism.

12 The use of non-standardised materials, such as toilets, procured centrally with minimum materials stored on site is generally considered by the works team to delay completion of maintenance works due to extended material procurement and site delivery timescales.

13 Prison staff have expressed a wish for 'C' and 'D' Wings to be completely refurbished similar to 'B' Wing. It would be logical, practical and cost effective to refurbish 'C' Wing concurrently with necessary asbestos removal and re-roofing works. However, this will increase the overall refurbishment cost and the time 'C' Wing will be non-operational during works. These factors may arguably hinder or prevent sufficient funding being granted to complete all refurbishment works in one phase.

HM Prison Nottingham

Site Address: HM Prison Nottingham, Perry Road, Sherwood, Nottingham NG5 3AG

Date of Visit: 4 November 2008

Brief description

1 HM Prison Nottingham dates back to 1890. However, with the exception of the old Gate House and Governor's House, the site has been extensively demolished and redeveloped. The oldest cell block on the prison was constructed in 1992. Cell blocks are generally in brickwork with profiled steel sheet roofing. Ancillary buildings generally are constructed from fair faced brickwork and insulated composite cladding panels with profile steel sheet roofing.

2 A substantial amount of redevelopment is currently taking place within the prison which will ultimately substantially increase the cell space available/ occupancy level.

3 The day to day maintenance of the prison is undertaken by the on-site work team employed directly by the Prison Service.

Building structure, fabric and services

4 From our limited visual inspection, the buildings generally appear weathertight, structurally sound with no evidence of any substantial subsidence or structural movement. There are a number of minor issues. However, these are not significant in consideration of the overall prison.

5 Internally, all areas appear reasonably well decorated with an ongoing decorating programme. Heavy use areas, such as communal showers within the cell wing areas, do require ongoing maintenance and historically there have been issues relating to floor gradients. However, these have been subsequently resolved.

6 Services appear to be reasonably well maintained. All planned preventative maintenance is up-to-date with very little, if any, backlog maintenance.

Other related matters

7 From our discussions with maintenance staff and the Governor, we believe that the estate and services are generally operational. However, we did identify the following issues which could give cause for concern.

8 The paved area between Cell Blocks 'D' and 'E' wings is in a condition such that there are numerous trip hazards. We consider that repairs should be carried out in this area and would anticipate an initial budget of £5,000 to carry out emergency repairs, with a long term budget of £60,000-80,000 to completely reinstate the area.

HM Young Offenders' Institution Stoke Heath

Site Address: HM Young Offenders' Institution Stoke Heath, Stoke Heath, Market Drayton, Shropshire TF9 2JL

Date of Visit: 7 October 2008

Brief description

1 The former RAF site was converted to a Category C adult prison in 1964 and subsequently converted to a young offenders' prison in 1966.

2 The majority of buildings vary in age from the 1960s, with the new 'I' Wing being constructed in 2008. The oldest building is a former RAF hangar building constructed in the 1940s/50s and now used as a workshop. Buildings are generally of steel and concrete-framed construction with brick and rendered external walls below pitched metal clad roofs and flat roofs presumably with felt and asphalt coverings.

3 Daily reactive maintenance and some planned maintenance work including minor projects are undertaken by the on-site works team employed directly by the Prison Service. The works team comprise of painters, plumbers, joiners, bricklayers, gas fitters and electricians; the majority of which have long service within a prison works team.

Building structure, fabric and services

4 From our limited visual inspection, the buildings are generally weathertight, structurally sound with no evidence of any significant subsidence or structural movement. The buildings are generally well maintained given the available resources with reported deficiencies generally relating to poor design and non-building related factors.

5 Despite receiving complaints regarding the construction quality and poor design of the new 'I' Wing, it is considered to be the best wing by prisoners. However, there is early evidence of remedial works required to address internal pipe leaks, cracked internal timber doors, broken external window vent openings and misaligned/rust-stained external metal wall cladding. The noted remedial work is unexpected given the building was completed in 2008 and the building defects liability period remains unexpired.

6 Cleaning of roof gutters is required to remove plant growth. Specialist external access to carry out gutter cleaning is generally required although the frequency of cleaning tends to be restricted by the prison regime and premium costs associated with specialist access ('cherry-picker').

7 Mechanical ventilation provision to shower areas is reported to be inadequate.

8 Prison user groups have provided various opinions regarding the prison condition ranging from good to appalling. In our opinion, the prison is generally in fair condition commensurate with the buildings' age and use.

Other related matters

9 Regular cell 'smash-ups' and general vandalism by prisoners are reported to be the principal cause of reactive maintenance works. This work reportedly accounts for between 50 to 75 per cent of the work team's total workload which tends to delay the completion of planned maintenance works.

10 'F' and 'G' Wings were reported to require the least maintenance and are generally considered to be in good condition. These wings are of robust pre-cast concrete framed construction whereas the new 'I' Wing is of pre-fabricated steel frame construction incorporating lightweight materials, that is, timber framed walls and floors. We anticipate the 'I' Wing will require proportionately more maintenance than other older and more robust buildings in the long term.

11 The prisoner induction/reception block ('E' Wing) was criticised primarily due to its outdated and poor layout although we considered its condition to be fair.

12 The prison policy of only works team staff being allowed to re-set electrical trip switches can cause operational difficulties due to prisoner disruptions and subsequent cell 'smash-ups' and vandalism.

13 The use of non-standardised materials procured centrally with minimum materials stored on site is generally considered by the works team to delay completion of maintenance works due to extended material procurement and site delivery timescales.

HM Prison Wellingborough

Site Address: HM Prison Wellingborough, Millers Park, Doddington Road, Wellingborough NN8 2NH

Date of Visit: 11 November 2008

Brief description

1 The prison was original constructed in 1963 and opened as a Borstal. The prison became a training prison for Category C adult males in 1990. The original cell blocks were constructed in 1973 and comprise structural concrete frame construction with external brick walls under shallow pitched felt covered roofs. Further cell blocks were constructed between 2001 and 2005 and are of modular concrete construction clad in brickwork under pitched metal clad roofs. Ancillary buildings are generally of brick construction with a combination of metal clad or felt-covered roofs.

2 The visitor centre is currently undergoing substantial refurbishment and redevelopment. We are advised that plans are in place for the construction of a further new cell wing to provide a further 60 cells.

3 Daily reactive maintenance and some planned maintenance work are undertaken by the on-site works team employed directly by the Prison Service.

Building structure, fabric and services

4 From our limited visual inspection, the buildings generally appear weathertight, structurally sound with no evidence of any substantial subsidence or structural movement.

5 Internally, areas appear reasonably well decorated with an ongoing decorating programme. Corridor areas, showers and other communal areas within the prison are heavily used and require substantial ongoing maintenance.

6 Several references were made during our visit to structural problems with 'E' Wing. From our limited visual inspection this consisted of vertical cracking generally located at the ends of brick feature walls to the external elevations. Whilst further more detailed examination of the structure would be required to confirm the cause of the cracking, our initial assessment is that the cracking is as a consequence of differential movement between the concrete framework and external brick veneer and is of no structural significance. Subject to the medium term strategy for the wing, repairs should be carried out to prevent further deterioration; we would anticipate initial budget costs in the region of £15,000-18,000.

7 Whilst the maintenance department are reporting no backlog maintenance and this is supported by the Prison Governor, many of the window casement fasteners to 'E' Wing, particularly the ground floor areas, are either damaged or missing and require immediate repair. We would consider this to fall into the category of backlog maintenance.

8 Due to the perceived uncertainty regarding the medium term strategy for cell blocks 'A'–'D' and 'E', we are of the opinion that only ad hoc short term maintenance has been carried out to both the fabric and services of these wings. Whilst funding has been identified within the future five year maintenance programme, it is inferred that the funding is by no means guaranteed. If these works are not carried out then, we are of the opinion that substantial failure will occur to the cell blocks in question.

9 We are advised that Crown Premises Inspection Group have issued an enforcement notice on Cell Wing Blocks 'A'–'D' due to inadequate means of escape and general fire precautions.

Other related matters

10 Following discussions with the Estates Maintenance Management Team, we are under the impression that there is a significant lack of coordination between major capital programme team and the resident maintenance team. Further, there is no apparent improvement of the site infrastructure to support the additional buildings that have been constructed on site, for example, all sewage from the site passes through a pumped sewage system. There has been no upgrade or review of the pump station to cater for the additional load imposed upon it by the additional cell blocks.

11 From our observations on site, it would appear that there is no standardisation or coordination of building components or service components within the new cell wing blocks. As a consequence, this leads to difficulty in ordering components and there is no scope for achieving bulk discount for consumable items.

12 We are advised that there has been a lack of maintenance and investment in the Building Maintenance System, as a consequence rather than one central Building Maintenance System for the entire site there are a series of individual isolated systems for each block. This in turn leads, in our opinion, to an inefficient and uncoordinated use of energy.

13 Boilers serving Cell Blocks 'A'–'E' are the original oil-fired boilers, whilst the boilers have been re-tubed and serviced, substantial energy savings could be made by their replacement with more efficient gas-fired boilers.

14 As with other prison establishments we have visited, alarm systems are 'closed protocol' precluding the use of any maintenance contractor other than the original installer.

15 The planned maintenance costs indicated for Cell Blocks 'A'–'E' and the expenditure necessary to comply with the Crown Premises Inspection Group enforcement notice is such that, we are of the opinion that the medium term strategy for the Cell Blocks should be reviewed, as it may well be more cost effective to demolish and re-construct these cell blocks.

16 Whilst the Planned Maintenance Programme undertaken by the on-site works team regularly achieves 100 per cent against its Key Performance Indicators, we are of the opinion that some of the inspections carried out, are of very limited value and inappropriate use of a resource, for example, visual inspection of sealed pump units in plant rooms. This type of pump is a sealed unit with no external moving parts. Therefore, a visual inspection will reveal nothing. This could be checked during other routine maintenance activities in the plant room.

HM Prison Woodhill

Site Address: HM Prison Woodhill, Tattenhoe Street, Milton Keynes, Buckinghamshire MK4 4DA

Date of Visit: 29 October 2008

Brief description

1 The prison has a unique layout and appearance based upon a Canadian prison design. It was constructed in 1992 to provide five prison blocks and an additional block was constructed in 1996. The buildings are of structural concrete framed construction with external brick walls under multi-pitched metal clad roofs and pitched clay tiled roofs to prison buildings outside the secure perimeter walls – the Works Department and the Visitors' Centre.

2 Daily reactive maintenance and some planned maintenance work including minor projects are undertaken by the on-site works team employed directly by the Prison Service.

Building structure, fabric and services

3 From our limited visual inspection, the buildings are generally weathertight, structurally sound with no evidence of any significant subsidence or structural movement. The buildings are generally well maintained and, in our opinion, the prison is in good condition that reflects the buildings' age and use.

4 The most significant reported maintenance issue is inadequate ventilation, air extraction and drainage serving shower rooms as evidenced by extensive mould growth and de-bonding of wall tiles. Apparently the showers were originally designed to accommodate 60 prisoners and are now being used by 80-plus prisoners. In our opinion, all shower areas require remodelling including the upgrading of mechanical air extract and ventilation provision.

5 Specialist high level access is required throughout the site to maintain and clean roof gutters. This is undertaken on a five-year cleaning cycle. However, extra wide gutters help to minimise debris build-up and subsequent blockages of rainwater pipes and drainage.

6 Pigeon soiling of external brickwork is a problem although controlled by the use of an on-site Harris Hawk to contain the pigeon population and external window modifications to prevent food being thrown outside which tends to attract vermin and pigeons.

7 Original installed services such as boiler plant and alarm control panels are now reaching the end of their expected serviceable lifespan. There are no current reported issues with the original boilers and they are considered to be in fair to good condition. However, high maintenance costs are now being incurred when alarm control panel components need replacement or repair. Some food servery equipment is reported to have obsolete components or require special ordered parts but remains in use despite their difficult maintenance and high maintenance cost.

8 The prison block design provides good visual coverage of all cells at each level from a ground floor atrium area. The atrium areas are difficult to clean and to maintain electric ceiling light fittings due to the specialist high level access required.

Other related matters

9 Cell 'smash-ups' and general vandalism by prisoners are reported to be the principal cause of reactive maintenance works. We did not meet any works team staff during our visit (a National Audit Office official met them the day before) but it was the Prison Officers' perception that it was not uncommon for the works team to rectify works undertaken by external contractors. This possibly highlights the benefit for prison works teams to undertake some planned maintenance and project work that may otherwise be given to external contractors due to the works team's experience and knowledge of the prison. There may also be cost benefits to be gained, subject to further cost analyses, although this could impact upon the completion of routine reactive and planned maintenance work.

10 The prisoner induction/reception was criticised for its poor layout and inadequate ventilation during Summer months, although we considered its condition to be good.

11 The use of non-standardised materials procured centrally with minimum materials stored on site generally delayed completion of maintenance works due to extended material procurement and site delivery timescales.

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