



School Buildings: Planning, Maintenance and Renewal



VICTORIA

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Auditor-General

School Buildings: Planning, Maintenance and Renewal

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Victorian Auditor-General's Office
Auditing in the Public Interest

The Hon. Robert Smith MLC
President
Legislative Council
Parliament House
Melbourne

The Hon. Jenny Lindell MP
Speaker
Legislative Assembly
Parliament House
Melbourne

Dear Presiding Officers

Under the provisions of section 16AB of the *Audit Act 1994*, I transmit my report on
School Buildings: Planning, Maintenance and Renewal.

Yours faithfully



D D R PEARSON
Auditor-General

12 November 2008

Foreword

The Victorian Government has, as one of its highest priorities, committed to provide a high quality education to the 540 000 students attending the state's government schools. Achieving this aim requires school buildings that adequately support the delivery of courses using modern teaching methods. Many of today's school buildings fall short of this requirement.

The government recognised the legacy of past underinvestment and in 2006 committed to rebuild or renew all government schools by 2017 through the *Victorian Schools Plan*. This has led to a doubling of the annual expenditure on school construction and rebuilding.

The Department of Education and Early Childhood had made a range of improvements to the processes it uses to manage school building assets. However, there is more to do. The audit recommendations include improving the way schools are prioritised for building works and how school buildings are maintained.

The department is working to develop sustainable approaches to maintenance planning and procurement. The department needs to complete this work and quickly present government with a cohesive framework of options so it can make an informed choice about the future maintenance of school buildings.

Transforming building maintenance is critical if the government is to realise the full benefits of the *Victorian Schools Plan*. Failing to formulate and apply adequate long term maintenance plans is likely to leave future generations of students with a legacy of poorly performing facilities.



D D R PEARSON
Auditor-General

12 November 2008

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1 Executive summary

1.1 Introduction

One of the Victorian Government's highest priorities is to provide a high quality education for the 540 000 students attending government schools. The government wants these students to have the opportunity to succeed regardless of where they live or their socio-economic background.

Achieving this objective requires good teachers, a challenging and appropriate curriculum, and facilities that adequately support learning and the modern methods used to deliver courses. The focus of this audit is on how well school buildings and their permanent fixtures, such as lighting, heating and cooling systems, are managed to deliver the conditions necessary for effective learning.

The Department of Education and Early Childhood Development (the department) has the supervision and management responsibility for the 29 000 government school buildings in Victoria.

The government's 2006 Building Futures Policy sets out the process for guiding all infrastructure investment in Victorian government schools. The policy puts improved education outcomes for students at the core of all planning and investment decisions.

The department provides funding for buildings maintenance and selects schools for inclusion within the government's building programs to construct and modernise schools. The department spends on average \$60 million each year on the maintenance of school buildings that have a depreciated replacement value of \$4.3 billion. Schools are responsible for the day to day maintenance of school buildings and for planning and supervising the completion of building works.

The audit assessed the department's management of programs to build, rebuild and maintain government school buildings by examining:

- the planning processes used to determine investment and maintenance actions and priorities
- the implementation and monitoring of these actions once committed
- the evaluation of asset management actions and the processes used to translate the results into an improved plan.

1.2 Conclusion

Most of today's school buildings were constructed quickly between the 1950s and the 1970s in response to a period of rapid population growth using lesser quality materials. In subsequent decades, the level of investment in school buildings has not been sufficient to renew and maintain facilities to provide the type of environment needed to develop students' learning potential.

Recognising this legacy, and the need to address it, the government's *Victorian Schools Plan* committed to rebuild or renew all government schools by 2017. The initial funding of \$1.8 billion will more than double annual expenditure on school construction and rebuilding between 2007 and 2011.

Given this period of transition and renewal, we found that the department had made improvements to the processes it uses to plan, implement and evaluate asset management programs.

The department has achieved much. It has:

- formed a robust high level framework to address the government's objectives and manage Victoria's school buildings
- developed the *Building Futures* process as a structured approach to the development and delivery of school buildings projects
- demonstrated a good track record in delivering the government's school rebuilding and refurbishment projects
- developed and applied an audit approach to assess asset condition and estimate outstanding maintenance works
- progressed research to develop an approach to buildings maintenance designed to maximise the government's investment in school buildings.

However, there is more to do and our recommendations are designed to:

- strengthen and make more transparent the way schools are selected for inclusion within the government's building programs
- upgrade the department's existing asset management information systems
- improve the way school buildings are maintained through longer-term maintenance planning
- strengthen the processes used to evaluate asset management programs and highlight areas for further development and improvement.

Transforming the way buildings are maintained is of critical importance if the government is to reap the full benefits of its investment in rebuilding government schools. The department has researched sustainable approaches to maintenance planning and procurement and is testing these approaches through pilot applications.

The department needs to use this information to present a cohesive framework of relevant options to government so that it can make an informed choice about how renewed school buildings should be maintained.

1.3 Recommendations

The department should:

- formulate a comprehensive business case of the costs and benefits of options for the future maintenance and renewal of all school buildings
(Recommendation 3.1)
- support schools in moving to a longer-term approach to planning through the creation of five-year building maintenance plans **(Recommendation 3.2)**
- document and apply robust processes to assess the building needs of schools and use this to inform the selection of schools for inclusion within the government's building programs, to assist delivery of improved educational outcomes **(Recommendation 3.3)**
- strengthen the *Building Futures* process by requiring the inclusion of longer-term maintenance plans and costs for the project proposal and for the base case, assuming the project does not go ahead. **(Recommendation 3.4)**
- upgrade its asset management information systems to improve the way school buildings are maintained and renewed **(Recommendation 5.1)**
- strengthen the processes used to validate the comprehensiveness and accuracy of the information collected through condition audits as it moves to a new approach that monitors asset condition **(Recommendation 5.2)**
- strengthen its building evaluation processes by:
 - applying and documenting a structured and comprehensive approach to capture performance issues
 - reviewing and where required strengthening the post occupancy review processes so that they adequately detect and report on significant performance issues **(Recommendation 5.3)**.

RESPONSE provided by Secretary, Department of Education and Early Childhood Development

DEECD notes the Auditor-General's report and the continuous improvement emphasis of the recommendations made. The Department sees as one of its main responsibilities is to manage and drive continuous improvement in the delivery of primary and secondary education in Victorian Government schools.

The results of the audit are welcomed in this context.

Recommendation 3.1

DEECD accepts in principle this recommendation. The Department considers that the intent of this recommendation is already managed through the DEECD Asset Strategy, and the Master Planning stage of the Building Futures Framework. All major renewal projects proceeding through Building Futures Master Planning stage have a thorough examination of the sufficiency, condition and suitability of existing stock to ensure that the proposed investment in each school will deliver improved student outcomes.

FURTHER comment by the Auditor-General

The department has pointed towards the detailed framework for project development and the overall asset strategy. Neither of these appropriately deals with the intent of this recommendation.

The business case we refer to will compare the costs and service impacts of continuing with the past maintenance approach across all schools, and options to provide life cycle maintenance and other variants on this. This would provide the information needed to choose and understand the consequences of the strategic approach adopted to manage school buildings.

Recommendation 3.2

DEECD accepts in principle this recommendation but considers the recommendation may require additional funding and resourcing. The Department is currently undertaking a series of maintenance pilots to assess approaches that will improve the quality and timeliness of maintenance activities and this will be supported by the introduction of a rolling condition audit process. The Department will also review the effectiveness of developing maintenance plans for major building types to enable a longer term approach to forecasting maintenance needs.

Recommendation 3.3

DEECD accepts this recommendation and takes on notice the need for continual review of processes such as Building Futures to ensure they are effective. The Department will ensure that the outcomes from Post Occupancy Reviews and the Building Futures Evaluation stage inform improvements in school design and program delivery.

RESPONSE provided by Secretary, Department of Education and Early Childhood Development – continued

Recommendation 3.4

DEECD accepts this recommendation and is continually reviewing the way maintenance in schools is managed. The Department is currently testing a differentiated funding model involving four maintenance pilot projects and over the next two years will be gathering a body of evidence to explore avenues for strengthening the Building Futures process. The Department does not wish to pre-empt the outcomes of this testing prior to conclusion.

Recommendation 5.1

DEECD accepts this recommendation. The Department is currently making changes and improvements to the School Maintenance System in preparation for the introduction of rolling maintenance audits.

Recommendation 5.2

DEECD accepts this recommendation and will continuously review the processes used to collect and report on the maintenance requirements of schools. The outcomes of the maintenance pilot projects will inform longer term decisions on improved processes relating to the assessment of asset condition.

Recommendation 5.3

DEECD accepts this recommendation. The Department has commenced a series of building performance reviews to better understand the performance of school buildings and to inform improvement in school design. The post occupancy review processes will be reviewed and improved to ensure that any significant building performance issues are identified and rectified.



2 Managing government school buildings in Victoria

2.1 Victoria's government school buildings

2.1.1 The role and importance of government schools

One of the Victorian Government's highest priorities is to provide a quality education for the 540 000 students attending government schools. The government wants these students to receive a high quality education and the opportunity to succeed regardless of where they live or their socio-economic background.

Achieving this objective requires high quality teaching, a challenging and appropriate curriculum, and facilities which adequately support teachers, the curriculum, parents and the school community. The term 'facilities' refers to:

- the site within which the school is located
- the buildings located on the school grounds
- the permanent fixtures, such as heating, cooling and lighting systems fitted within school buildings
- moveable equipment, such as the furniture and information technology assets, placed within school buildings.

The focus of this audit is on how well school buildings and the permanent fixtures they support are managed in Victoria's government schools.

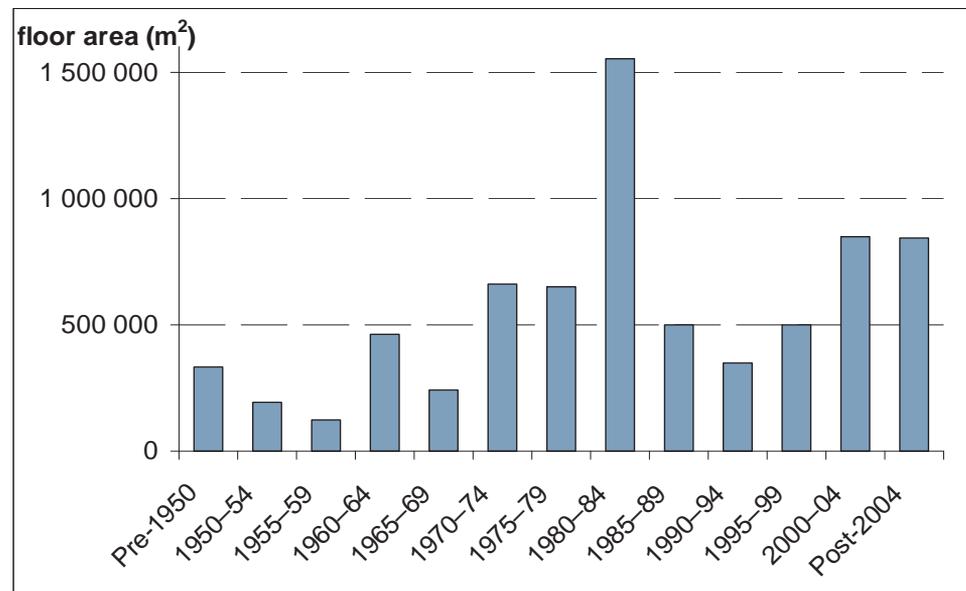
2.1.2 Government school buildings

Victoria's government schools comprise approximately 29 000 buildings. The depreciated replacement value of these building assets and the value of the associated land are \$4.3 billion and \$6.4 billion respectively.

Current government school buildings provide approximately 7.2 million square metres of floor space of which 3.7 million square meters is in teaching spaces. Figure 2A shows when this building space was constructed. The figure shows that:

- two thirds of this floor space is within buildings that are more than 20 years old
- nearly 50 per cent of this floor space was developed between 1960 and 1984
- since the year 2000 the level of construction has more than doubled compared to the 15 years before 2000.

Figure 2A
Construction of government school buildings—floor area by time period



Source: Department of Education and Early Childhood Development.

2.2 Key asset management concepts

2.2.1 Asset management overview

Public assets are created, refurbished, maintained and valued because of the services they deliver to the community. School buildings must contribute to the achievement of the government's overall learning goals. They do this by creating an environment that supports and encourages learning.

Asset management involves a structured approach to the long-term management of assets to efficiently deliver services of the required type, quality and reliability.

2.2.2 Service provision and educational attainment

School buildings need to be managed to provide conditions that enable teachers and students to deliver the government's educational goals. Practically, this means providing secure, comfortable and user-friendly environments that effectively support the delivery of a modern curriculum.

In this report the term 'modern curriculum' refers to the type of courses schools should offer and the teaching methods that should be used to deliver these courses. For example, modern courses often require the use of individualised and small group teaching with an increased dependence on computer-based learning.

Current research and experience supports the view that the spaces and environment created by school buildings have a direct impact on how well students learn. The Commonwealth¹ and the department² have commissioned research on this subject, which shows that students are likely to perform better in a secure, comfortable building that creates a stimulating and attractive environment. The services delivered by school buildings may fall short of what is required where:

- the overall capacity of a school does not closely match student enrolments
- the condition of buildings and permanent fixtures leads to an unsafe, insecure or uncomfortable environment
- buildings are not suitable for the teaching of a modern curriculum.

We illustrate the issues surrounding the capacity, condition and suitability of school buildings under the following three headings.

Capacity

In an area where the population is growing schools may have to enrol more students than they can comfortably accommodate. This is likely to have indirect and direct impacts on the type and quality of education provided. Overcrowded classrooms and corridors lead to cramped conditions and delays when students move between classes. The scarcity of specialist teaching facilities, such as science laboratories, means that some students may not get the opportunity to complete all parts of the curriculum.

Population decline presents different challenges. Running a partly filled school is not efficient and expenditure to maintain excess space represents a sunk cost for the system. Furthermore, a significant portion of maintenance funding to schools is related to enrolments. This means that it is difficult for schools to fund the maintenance of underutilised building space.

Condition

Inadequate maintenance prevents buildings delivering the services they were designed for and this detracts from the learning experience. In the worst cases, poorly maintained buildings may present a serious safety risk and become unusable.

¹ Fisher, K. 2000, 'Building Better Outcomes: The Impact of School Infrastructure on Student Outcomes and Behaviour', *Schooling Issues Digest*, Commonwealth Department of Education, Training and Youth Affairs, Canberra.

² Department of Education and Training (now the Department of Education and Early Childhood Development) 2006, *The Impact of School Infrastructure on Education Outcomes—A literature review*, Department of Education and Training, Melbourne.

Suitability

School building requirements have changed with developments in curriculum and teaching methods to cater for twenty-first century teaching and learning. Some older buildings are not suitable to deliver all aspects of a modern curriculum. This may be the case even where an older school has balanced enrolments to overall capacity and has properly maintained its buildings so they deliver to their service potential. For example, older classroom configurations are often not suitable for the individualised learning and small group work that are central to many modern courses.

2.2.3 Managing school buildings assets

Asset management aims to deliver cost effective services that best promote the achievement of the government's educational goals. For school buildings this will be achieved by combining asset management programs to:

- expand capacity in growth areas and rationalise capacity in areas where the school aged population is falling
- maintain existing, modernised and new buildings in a condition where they safely and reliably deliver services consistent with their design and capacity
- improve the suitability of school buildings through the modernisation and replacement of older, less suitable buildings.

Asset managers must decide how to combine these programs to best contribute to students' educational attainment. These decisions are further complicated where the available funding falls short of the amount needed to adequately maintain and renew the asset base. In this case asset managers need to set program and project priorities to make best use of the available funding.

This task is challenging. It requires a structured and methodical approach to the planning, implementation and evaluation of building and maintenance programs. For example, moving towards the closure of a school with falling enrolments requires extensive community consultation and thorough planning over an extended time period.

The key components of a better practice approach to asset management include:

- forming systematic and well formed plans that:
 - set out clear objectives and define levels of service consistent with the achievement of these objectives
 - are based on a good understanding of current asset performance and sound forecasts of how performance is likely to change over time
 - include a structured set of activities to efficiently address under-performance through the creation, maintenance, renewal and disposal of assets and the prioritisation of these actions
 - set out the funding streams required to make plans operational
- creating and applying processes so that plans are implemented as intended
- evaluating performance and using this information to improve how assets are managed.

Parts 3, 4 and 5 respectively of this report assess how well the department has planned, implemented and evaluated programs to manage school buildings.

2.3 The asset management challenges

The department faces key challenges if government school buildings are to provide the type and quality of learning environments needed to contribute to a high quality education for all Victorian students.

2.3.1 Matching school buildings to a changing population

Victoria is experiencing significant population changes. Some parts of the state, like the growth areas within metropolitan Melbourne, have had rapid population growth. This is expected to continue. Other parts of Victoria have experienced an ageing and declining population.

These changes mean that there are or there will be insufficient school places in some areas and partly filled schools in others. In growth areas the department needs to forecast change and provide buildings to accommodate additional students. This usually means building new schools or expanding existing facilities.

In areas of population decline the department needs to help schools to adjust to falling enrolments. A half filled school becomes more expensive to operate and maintain on a per student basis. The department's role is to help schools come to solutions that deliver good quality facilities cost effectively. To this end the department supports schools that want to pursue community partnership arrangements to address these issues.

2.3.2 Maintaining buildings so they perform as intended

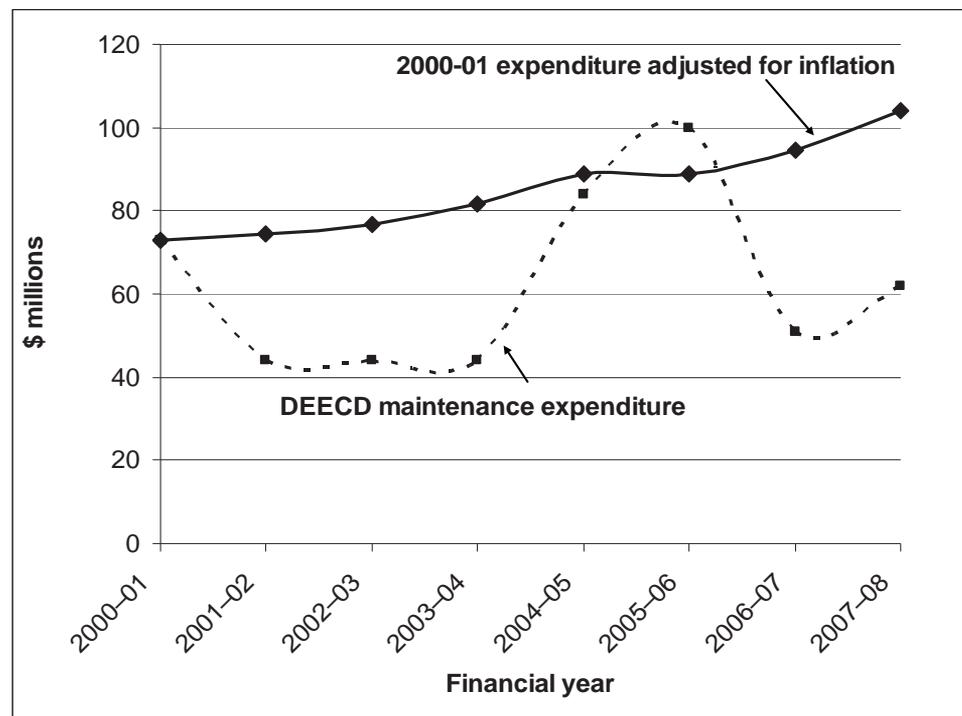
Most of today's school buildings were constructed quickly between the 1950s and the 1970s using lesser quality materials, in response to a period of rapid population growth.

Properly maintained, these buildings were designed to last for 40 years. Most of them are now well beyond this design life and they require frequent and expensive works to maintain them at an acceptable standard.

Past levels of expenditure have not been sufficient to prevent the build up of an arrears of essential maintenance works. The department's 2005 condition audit of all government school buildings in Victoria found outstanding maintenance works that would cost \$230 million to address. The cost of addressing only high priority works considered critical to the daily operation of schools was \$30 million.

Figure 2B shows how central maintenance funding has changed between 2001–02 and 2008–09. The figure also shows how this funding needed to have changed to keep pace with inflation as represented by the non-residential construction price index.

Figure 2B
Central maintenance expenditure between 2000 and 2008



Note: DEECD maintenance expenditure in the data also includes supplementary funding.
Source: Department of Education and Early Childhood Development (for maintenance expenditure) and Australian Bureau of Statistics³.

In 2000–01 the department provided \$73 million in maintenance funding for government schools, including supplementary funding for maintenance works. Over the subsequent eight years the amount of funding varied between a low of \$44 million (between 2001–02 and 2003–04) and a high of \$100 million (in 2005–06).

To keep pace with inflation, as measured by the non-residential construction price index, funding would have had to increase to \$104 million by 2007–08. Maintenance funding of \$62 million, including supplementary funding, in this year was some \$42 million below the inflation adjusted figure. Over the seven years following 2000–01 the total maintenance funding fell some \$217 million (in 2007–08 prices) short of the sum required to keep pace with inflation.

Adequately maintaining the current and renewed stock of school buildings represents a significant challenge for government, the department and schools.

³ Australian Bureau of Statistics June 2008, Producer Price Indexes, Australia, 'Tables 15 and 16. Output of the General Construction Industry, Index Numbers and Percentage Changes', Cat. No. 6427.0, viewed 20 October 2008 <<http://www.abs.gov.au>>.

2.3.3 Upgrading buildings so they are suitable for a modern curriculum and teaching methods

Most of Victoria's school buildings do not provide suitable modern learning environments. This particularly applies to the light timber construction facilities built up to the end of the 1970s.

The level of investment post 2006–07 represents a significant increase in capital funding required to modernise and rebuild facilities that were not up to the task of delivering a high quality, modern education.

The government's commitment in 2006 to the *Victorian Schools Plan* is an acknowledgement of the need for a greater level of investment. The first \$1.8 billion of funding has doubled the annual level of investment compared with the period between 2000 and 2007.

The department is faced with the challenge of effectively deploying this funding to deliver high quality learning environments for all Victorian school children.

2.4 The approach to managing school buildings

2.4.1 The roles and responsibilities of government, the department and schools

Government

The *Education and Training Reform Act 2006* provides the minister responsible for the education portfolio with the powers to:

- establish, carry on and discontinue government schools
- set overall policy and issue guidelines, advice and directions for education in Victoria.⁴

Growing Victoria Together and *A Fairer Victoria* set out the government's long-term directions for Victoria and include policy goals to:

- provide a high quality education and training for lifelong learning for all Victorians
- provide fairer access to services to reduce disadvantage
- build stronger communities including a commitment to support partnerships between schools and communities to develop shared facilities
- construct new schools in high growth areas.

In 2003 the government released *Blueprint for Government Schools*. Its key objective was that all government school students, irrespective of the school they attend, where they live or their social or economic status, are entitled to a high quality school education and a genuine opportunity to succeed.

⁴ *Education and Training Reform Act 2006*, Sections 2.2.1 and 5.2.1.

The *Blueprint for Education and Early Childhood Development* was released in 2008. This built on the previous policy by strengthening the performance framework for schools.

The government has also taken a clear position that local school communities are best placed to make decisions about their schools. Practically this means that school closures and amalgamations can only proceed with the support of local school communities.

The government specifically recognised the importance of good asset management to the delivery of its goals and published the policy document *Sustaining Our Assets* in 2000. This set out an approach emphasising the effective delivery of services taking account of the whole-of-life costs in providing these services.

The Department of Education and Early Childhood Development

Under the *Education and Training Reform Act 2006*, the department is responsible for the administration of education in Victoria with the principal function of assisting the Minister in the administration of this act. As part of this responsibility the department needs to ensure that an effective quality assurance regime is in place over the financial and operational activities of school councils. School council financial audits are in place to do this.

The department manages government school building assets on behalf of the state. Its objective is to effectively guide the acquisition, use and disposal of assets to make the most of their service delivery potential and manage the related risks and costs over their entire lives. Within its asset management role, the department is responsible for planning and funding the:

- provision of new and environmentally sustainable schools
- modernisation of existing schools
- ongoing maintenance of school buildings
- rationalisation and closure of underutilised schools.

The department operates under a partly devolved system with schools and the department's regional offices responsible for the implementation and monitoring of maintenance and building projects. The department's regional offices are the first point of contact with schools and play a key role in all aspects of planning and management.

Schools

School councils, including the principal,⁵ are responsible for establishing the broad direction for each school and for the planning and operational activities required to discharge their educational responsibilities. In terms of specific responsibilities related to school buildings, school councils:

- must ensure that school buildings and grounds are maintained in good order
- are responsible for carrying out building works on the school site subject to the approval of the minister.

2.4.2 Program management

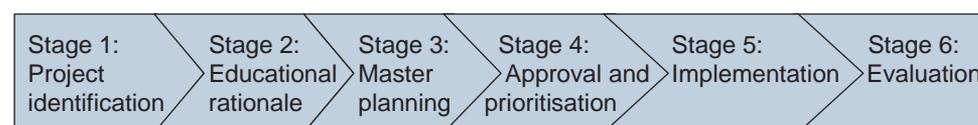
In this section we describe how the department and schools plan, implement and evaluate programs to meet the accommodation needs of government school students. We summarise the approach for programs that:

- change the asset base, by building new or upgraded assets, or by rationalising existing assets where there is excess capacity
- maintain existing or upgraded assets
- deal with the management of relocatable classrooms and the risks posed by asbestos in buildings.

Programs to change the asset base

In 2006 the department introduced the *Building Futures* process as the framework to guide the planning, implementation and evaluation of all government school infrastructure projects. Figure 2C shows the six stages of this process.

Figure 2C
The stages of the *Building Futures* process



Source: Department of Education and Early Childhood Development.

At the heart of this framework is the requirement that the needs of individual students inform the planning and development of school infrastructure. The key principles guiding the design and application of the framework are that:

- educational needs underpin all facilities decisions
- facility design supports effective learning and the delivery of quality education over the longer-term
- the planning of education delivery and facility design engages local communities.

⁵ *Education and Training Reform Act 2006*, Section 2.3.7, 'The principal of a school is the executive officer of the school council and must ensure that: (a) adequate and appropriate advice is provided to the school council on educational and other matters, (b) the decisions of the school council are implemented and (c) adequate support and resources are provided for the conduct of school council meetings.'

The major vehicle for the investment in school buildings is the *Victorian Schools Plan*. This plan involves the rebuilding, renovation or extension of all government schools by 2017. The government has provided an initial commitment of \$1.8 billion to renew or reconstruct 500 schools by 2011.

The department selects schools for inclusion within the *Victorian Schools Plan* and invites these schools to participate in the *Building Futures* process. Each government school infrastructure project goes through this structured process of project development and delivery, as shown in Figure 2C. The department supports schools through the provision of expert advice and technical guidance throughout this process.

Programs to maintain the asset base

Individual schools are responsible for planning and implementing works to maintain school buildings and grounds in good condition. School buildings and permanent fixtures should be maintained to reliably deliver services consistent with their design and should not pose health and safety risks to people using them.

The department represents the state as the owner of these assets and supervises, supports, funds, monitors and evaluates the planning and implementation of school maintenance programs. Figure 2D summarises how the department discharges this role.

Figure 2D
The department's activities in relation to school building maintenance

Maintenance phase	Department's activities
Planning and funding	<ul style="list-style-type: none"> • provides data on school assets through the Schools Asset Management System (SAMS) database • provides data on outstanding and completed maintenance works through the Schools Management System (SMS) database • provides information on building standards and the costs of maintenance works • researches better practice approaches • pilots innovative maintenance approaches • provides advice on maintenance planning • allocates: <ul style="list-style-type: none"> • routine maintenance funding • supplementary funding to address emergencies • funding to targeted, small scale renewal programs

Figure 2D
The department's activities in relation to school building maintenance – *continued*

Maintenance phase	Department's activities
Implementation and monitoring	<ul style="list-style-type: none"> validates routine maintenance expenditure when schools apply for supplementary funding selects contractors for targeted maintenance programs and verifies this expenditure
Evaluation	<ul style="list-style-type: none"> maintains an ongoing picture of asset condition through the Schools Management System database of outstanding and completed maintenance works updates this database through a five-yearly audit of the condition of government school buildings.

Source: Victorian Auditor-General's Office.

Programs to manage relocatable classrooms and the risks of asbestos in schools

The department plans for the provision and management of relocatable classrooms through its central and regional offices. The central office supervises the implementation of the outsourced relocatable classrooms program. As part of the *Victorian Schools Plan*, the government committed funding of \$45 million to build 400 new relocatable classrooms.

Asbestos related issues are monitored by schools with supervision from the department's central office. Every school has a specific asbestos management plan as an essential reference source when planning any building works. The department has outsourced the implementation of these asbestos management plans. The department allocated \$4.4 million in 2007–08 and \$3.2 million in 2008–09 to deal with asbestos related issues.

2.5 The audit

2.5.1 Our approach to the audit

The audit assessed the effectiveness, economy and efficiency of the department's asset management of government school buildings. To address this objective, the audit examined:

- the planning processes used to determine investment and maintenance actions and priorities
- the implementation and monitoring of those actions once committed
- the evaluation of asset management actions and the processes used to translate the results into an improved plan.

In addition to examining the processes and activities of the department's central office, we visited six of the nine regional offices and a selection of 20 of the 1 600 government schools. These schools were selected to provide an on-the-ground assessment of the processes used to manage school buildings. While the selection is an audit judgement sample and provided valuable insight to these processes, it is not a statistical sample of all government schools.

The selection was designed to cover a range of different school characteristics including:

- type (primary, secondary and specialised)
- location (metropolitan Melbourne, regional towns and rural Victoria)
- size (student enrolment)
- building activity (recent or current experience of a building project).

Appendix A lists the schools and regional offices visited during this audit.

In this report:

- part 3 examines the adequacy of planning and prioritising activities to manage school buildings
- part 4 reports on the delivery of investment and maintenance actions
- part 5 presents the audit findings on evaluation and continuous improvement regarding the management of school buildings.

The audit was performed in accordance with Australian auditing standards applicable to performance audits, and included tests and procedures sufficient to enable audit conclusions to be reached.

The total cost of the audit was \$440 000. This cost includes staff time, overheads and printing.

2.5.2 Acknowledgements

The audit team thanks those who participated in the audit, particularly the Department of Education and Early Childhood Development central office, regional and school staff, all of whom were exemplary in providing access to the information that underpins the audit findings.

3 Planning and prioritising activities to manage school buildings

At a glance

Background

The size and complexity of the school building asset base and the nature of the challenges facing Victoria require a structured planning approach.

To be effective asset planning needs to be guided by clear objectives, to be based on a good understanding of the performance gaps and to be framed by long-term plans that prioritise actions to address the performance gaps in the most effective way.

Key findings

- The department manages school buildings within a clear set of policy goals and program objectives and, for the most part, has described what these objectives mean for the conditions provided by school buildings.
- The department's asset strategy and the *Victorian Schools Plan* set out a robust framework for the management of Victoria's educational infrastructure.
- However, the resources applied to maintain school buildings have fallen short of what is needed to properly maintain these assets.
- The department's research into alternative maintenance models puts it in a good position to present government with options for improvement.
- Continuing with the current approach to maintenance will lead to further deterioration of the renewed asset base.
- We did not find a clear documentary trail explaining the basis for selecting schools for inclusion within the initial *Victorian Schools Plan* funding commitment of \$1.8 billion.
- While the *Building Futures* process provides a strong framework for individual project planning, the department needs to document and apply a clear process to prioritise schools for inclusion within its building programs.
- The department has adequately planned for the construction and use of relocatable classrooms and applies stringent processes to manage asbestos.

At a glance - *continued*

Key recommendations

The department should:

- formulate a comprehensive business case of the costs and benefits of options for the future maintenance and renewal of all school buildings
(Recommendation 3.1)
- support schools in moving to a longer-term approach to planning through the creation of five-year building maintenance plans **(Recommendation 3.2)**
- document and apply robust processes to assess the building needs of schools and use this to inform the selection of schools for inclusion within the government's building programs, to assist delivery of improved educational outcomes **(Recommendation 3.3)**
- strengthen the *Building Futures* process by requiring the inclusion of longer-term maintenance plans and costs for the project proposal and for the base case, assuming the project does not go ahead. **(Recommendation 3.4).**

3.1 Background

The size and complexity of the school building asset base and the nature of the challenges facing Victoria require a structured planning approach.

To be effective asset planning needs to:

- be guided by clear objectives and a good understanding of what these mean for the type, quality and reliability of services provided by school buildings
- be based on a good understanding of the performance gaps, or how well school buildings meet current and future needs
- develop long-term plans that provide a sound basis for combining programs and prioritising actions to address the gaps between actual and required performance most effectively.

In this part we examine:

- the clarity of objectives and service levels (section 3.2)
- the department's understanding of the gaps between current performance and the current and emerging building needs (section 3.3)
- the plans used to manage school buildings, including:
 - the overall asset strategy (section 3.4)
 - maintenance plans (section 3.5)
 - building and refurbishment plans (section 3.6)
 - relocatable classrooms and asbestos management (section 3.7).

3.2 Asset objectives and service requirements

3.2.1 The department manages school buildings within a clear set of policy goals and program objectives

State government policy is clear in relation to education

The *Growing Victoria Together* framework recognises that the provision of high quality education and training is critical to the achievement of the government's economic, social and environmental goals. The education and training system needs to provide all Victorians with a genuine opportunity for successful lifelong learning.

The department has translated this government policy into clear objectives for school buildings

The department has used research by the Commonwealth to confirm a strong relationship between the type and quality of school buildings and student achievement. The department concluded that many existing school buildings are a major barrier to the achievement of the government's overall goal of a high quality education. Removing this barrier was identified as one of the department's goals.

The *Victorian Schools Plan* is the vehicle for equipping all government schools to provide a high quality education to all students, now and in the future. The objectives of the plan include:

- providing school infrastructure that creates the type and quality of school buildings to enable optimal student outcomes and greater choice
- increasing the number and variety of school partnerships to strengthen the ties between schools and their surrounding communities
- rationalising the asset portfolio to improve the efficiency of the school infrastructure.

3.2.2 Generally, the department has adequately described what its *Victorian Schools Plan* objectives mean for school building conditions

The department has formulated clear building capacity requirements and has demonstrated a clear understanding of current and forecast demand

The department's building and design schedules define the size of buildings and the amount of space required for varying enrolment levels. The department applies these guidelines to determine schools' current capacity to accommodate students.

The department has a clear understanding of current enrolments and combines this with the latest population projections to forecast demand for school places. The department has used this information on capacity and demand to plan the construction of new schools and to consider proposals for combining schools where there is excess capacity.

There are clear condition assessment guidelines

The department has developed and applied condition guidelines through its five-yearly audits of all government school buildings. These provide a valuable assessment of asset condition and the type and cost of outstanding maintenance works.

The department has defined the type and quality of buildings needed to deliver a modern curriculum

The department has invested in research by leading design practitioners to describe what a modern curriculum and modern teaching methods mean for building design. The document *Victorian Schools Design* draws on this research to provide, with other documentation, guidance on the design of school buildings.

The department defines the service levels for the building attributes that impact on the learning environment

The minimum building standards for the construction and development of school buildings defines some environmental aspects in terms of required inputs and others in terms of the required outcomes. For example, the standards specify:

- as inputs the type of heaters and air conditioning units that should be used to control temperature in different types of school rooms
- as an outcome the level of acceptable noise permeating a classroom.

The new public-private partnership schools will be built according to an output specification setting outcomes in relation to the building environment including, for example, a minimum temperature for classrooms when they are in use.

The current arrangements provide the means to raise and resolve building issues seriously affecting the learning environment

While uniform outcome standards do not apply across all schools in Victoria, schools were able to raise and resolve issues which seriously compromised the teaching environment.

Our examinations in the department's central and regional offices and in the 20 schools showed that the department's regions and central office quickly escalated and resolved asset failures which seriously affected the classroom environment. An example would be where a school's heating or cooling system had failed and needed to be repaired to maintain an acceptable learning environment.

3.3 The scale and nature of performance gaps

3.3.1 The department regularly measures asset condition but needs to improve the currency and accuracy of this information as planned

The department commissions an audit of the condition of all government school buildings every five years. The auditors visit every school equipped with plans from the Schools Asset Management System database and, using an agreed method:

- document asset condition
- identify and prioritise outstanding works
- use uniform unit rates to estimate the costs of addressing these works
- subsequently record this information on the Schools Maintenance System database (schools can also access and amend this database to record additional works as they become visible and note where issues have been resolved).

The survey and associated systems provide valuable information to assist the schools and the department in setting asset management priorities.

Our examination of the department's systems and processes and our visits to schools, however, raised a number of issues about the currency and accuracy of the condition information.

3.3.2 The department has developed a sound understanding of current and forecast demand and capacity

We reviewed the department's approach to forecasting state-wide, regional and local enrolments and found that these formed an adequate basis for planning.

In terms of the approach to developing the forecasts, the department:

- takes, as a starting point, current enrolments and the latest demographic projections issued by the Department of Planning and Community Development and the Australian Bureau of Statistics
- analyses these projections and information on current enrolments to forecast the demand for primary, secondary and specialised school places at a local level
- consults the department's regional offices to confirm the forecasts and to take account of any local factors that would not be picked up by this uniform approach.

We found that the department updates these estimates when it is apparent that population changes have varied from previous forecasts. This is a particular challenge for some of the state's growth areas where the population has increased more than anticipated over the last few years.

3.3.3 We did not find adequate information to compare schools in terms of the suitability of their buildings to deliver a modern curriculum

We found some information on suitability for individual schools

Schools are required to document their approach to achieving educational goals in strategic plans covering a four-year period. The plan identifies the key barriers to success and this provides the opportunity to raise issues about the capacity of the school and the condition and suitability of the buildings.

The *Building Futures* process provides the opportunity for schools to assess and address the suitability of their buildings. The first two stages of the *Building Futures* process provide the opportunity to assess the educational need for investment including the impact of the condition, capacity and suitability of buildings on educational attainment.

We did not find documentation that allowed us to compare the suitability of buildings across all government schools in Victoria

We looked for information that allowed us to compare all Victorian schools and to gain an understanding of the scale and significance of the gap between their current buildings and the type of buildings needed to deliver a modern curriculum. We found no comprehensive documentation that might form the basis for comparing schools.

3.3.4 We found no documentation providing a comparative assessment of the overall building needs of government schools in Victoria

The department has not brought together the available information to assess the relative needs of government schools

The department collects and generates valuable information about the condition of school buildings and their capacity to deal with current and expected enrolments. Schools and the department's regional offices also have an understanding of how the current building stock limits the effective application of a modern curriculum.

We found no documentation that summarised and analysed this information to assess the building needs of individual schools and the implications for educational achievement.

The department needs to assess and document the adequacy of existing school buildings

The department has a current work stream examining ways to assess and measure these needs. Such an assessment would provide assurance that asset management programs are being prioritised to address the areas of greatest need within the constraints imposed by government's existing policy commitments.

In the UK, local education authorities, which are similar to the regions, have applied documented processes to assess building needs. The strengths of this approach are in providing a documented and consistent method of assessing the schools' building needs. This assessment forms the basis for prioritising building projects and provides the UK Department for Children, Schools and Families with assurance that funds are targeted to the areas of greatest need.

Figure 3A
Providing information to inform investment priorities—a UK case study

The role of local education authorities in England

Some 150 local authorities in England are responsible for the supervision of and capital planning for nearly 25 000 schools and 7.6 million students. The asset management aims of local authorities include:

- raising standards of educational attainment
- providing innovative design solutions that reflect the future needs of ICT-based education
- maximising value for money
- promoting the efficient and effective management of new and existing assets.

Capital planning requirements

In the UK the Department for Education and Employment (now the Department of Children, Schools and Families) expects local authorities to base their capital planning and priorities on an assessment of the contribution of projects to addressing the stated asset management aims.

The authorities' asset management plans set building priorities based on an assessment of the impacts of building capacity, condition and suitability on students' educational attainment. Funding is prioritised towards the schools with the greatest needs and where building projects are likely to realise the greatest benefit.

Guidance material to help authorities assess needs and priorities

The department provides guidance on how to assess the needs of the schools in each local authority area in a way that provides assurance that resources are addressing the most urgent priorities.¹

The guidance material provides practical advice on assessing asset condition, the alignment of overall school size with the number of enrolments and the suitability of buildings to effectively deliver a modern curriculum. For example, the guidance includes a detailed, survey-based approach to assess building suitability, focusing on:

- the rooms or the spaces that inhibit learning
- the type of problem encountered
- the severity of the problem in terms of its impact on the delivery of courses or the management of the school
- the type and severity of any health and safety issues arising from inadequate aspects of the building or site layouts
- any problems relating to students with disabilities or special educational needs.²

Using this information to set priorities

The detailed guidance provides further pro forma examples of how this information might be summarised for a single school and presented to the local (or regional) education authority and to central government.

Local authorities use this information to set priorities within their asset management plans.

Source: the UK Department for Children, Schools and Families.

¹ UK Department for Education and Employment (now the Department for Children, Schools and Families) 2000, *Asset Management Plans, Section 1: Framework*, Department for Education and Employment, London UK.

² UK Department for Education and Employment 2000, *Asset Management Plans, Section 4: Suitability Assessment*, Department for Education and Employment, London UK.

3.4 Overall asset strategy

3.4.1 The department's asset strategy and the *Victorian Schools Plan* set out a robust framework for the management of Victoria's educational infrastructure

We examined the department's asset strategy for the period 2007 to 2017 and the strategic assessment for the *Victorian Schools Plan*.

We found that the framework objectives provided a clear link to the government's policy aims and the specific goal of providing all young Victorians with a high quality school education. The objectives included:

- providing school infrastructure that enables optimal student outcomes with greater choice
- rationalising the asset portfolio to gain efficiencies and reduce costs
- increasing the number and variety of school and community partnerships.

The framework defines the full range of business changes required to achieve these objectives making the strategy more than a one-off capital investment program.

3.4.2 The framework is backed by a significant commitment to fund the largest school rebuilding program in Victoria's history

Between 1999 and 2006 the government had funded the rebuilding or modernisation of 400 of the state's 1 600 government schools.

The *Victorian Schools Plan*, released in 2006, signalled a commitment to renew or reconstruct the remaining government schools through:

- funding of \$1.8 billion to renew or reconstruct a further 500 schools between 2007 and 2011
- a commitment to complete works at the remaining 700 government schools between 2011 and 2017.

The department also initiated programs to promote business changes to:

- improve governance and accountability
- introduce modern and innovative school design
- improve engagement and communication with stakeholders
- improve procurement and facilities management
- develop a strategy to cater for the changing demand for school places
- establish appropriate information systems
- incorporate community partnerships into the infrastructure planning process.

3.5 Maintenance planning

3.5.1 The resources applied to maintain school buildings have fallen short of what is needed to properly maintain these assets

We examined the following sources of information to determine whether the past maintenance of school buildings had been adequate:

- the results of the 2005 school buildings condition audit
- departmental estimates of the amount required to sustain a building portfolio over its life cycle
- research on sustainable levels of maintenance expenditure for Victorian independent schools
- patterns of departmental maintenance funding over the last decade
- case study material from our school visits.

The 2005 audit showed \$230 million of outstanding works

This accumulation reflects the ageing asset base and the inadequate funding for maintenance and renewal. The significant number of older, poorer quality buildings are very expensive to maintain.

The government's commitment to renew the asset base is expected to reduce the maintenance demands. New and renewed buildings should be designed to reduce the regular maintenance requirements if properly maintained.

Departmental estimates of sustainable maintenance expenditure range between \$108 million and \$200 million

The department's 2004 asset strategy used an estimate of \$85 million per year as the amount needed to adequately maintain school buildings at that time. We have not seen the detailed basis for this calculation. The *Victorian Schools Plan Strategic Assessment* states that this figure used an estimate of the cost per square metre required to maintain minimum asset standards. Applying the Australian Bureau of Statistics construction price index to this gives an equivalent value for 2007–08 of \$108 million.

The department commissioned research on asset maintenance in 2007. The study estimated the average annual level of maintenance required to keep school buildings close to their original condition across their useful lives. From a review of the literature the study concluded that this estimate was equivalent to multiplying the cost of replacing the asset base as new by a factor of 2.5 per cent.

The department's 2004 asset strategy included an estimate of the buildings replacement costs of \$5.21 billion as at June 2004. We estimated that this figure had increased to \$8 billion by June 2008 by:

- applying the ABS non-residential construction price index
- making an allowance for the department's capital expenditure on new and modernised school buildings between July 2004 and June 2008.

This information implied an estimate of the annual average amount required to fund a life cycle approach to maintenance of \$200 million.

Victorian independent schools estimate of sustainable levels of maintenance

A research paper from a Melbourne independent school concluded that between 1.5 and 3.0 per cent of the replacement asset value was required per annum to maintain and refurbish assets to adequately perform their intended functions. This included allowances of:

- between 1.0 and 1.5 per cent for routine and reactive maintenance
- between 0.5 and 1.0 per cent for asset refurbishment excluding new capital works.

The independent school commissioning the paper estimated that it devoted 3.3 per cent of the replacement asset value towards maintenance and refurbishment. These figures are consistent with the estimates derived from the department's research.

Departmental maintenance funding over the last nine years has averaged \$60 million per annum

The amount of funding for routine maintenance, emergency responses and targeted maintenance and renewal programs has varied between \$44 million and \$100 million per annum between 2000–01 and 2008–09.

The department has funded schools with \$255 million for maintenance works, post the 2005 condition audit.

Although we found that the schools we visited spent more than the funding provided by the department, this was not sufficient to meet their maintenance needs

All the schools we visited, including newly constructed schools, claimed to spend more than they received from annual maintenance funding from the department. We examined the detailed maintenance records for five schools to verify this. Twelve of the schools we visited addressed immediate and pressing maintenance concerns and made it clear that they could not afford to schedule all the planned maintenance works needed.

3.5.2 We found a short-term approach to maintenance planning driven, in part, by these resource constraints

The average central funding for maintenance of \$60 million per year over the last nine years has included:

- minor works funding of \$29 million
- a contingency fund to address emergencies of \$11 million
- \$20 million in funding that has become available during the course of each financial year, used for targeted, small scale renewal programs.

The department's planning has focused on the allocation of this funding across government schools. Over the last two years the department has investigated alternative maintenance approaches and we describe this work below.

The 20 schools we visited all adopted a short-term approach to maintenance planning. Within this selection, nine schools adopted a very reactive approach, contracting resources to fix problems as they occurred. Twelve schools had more permanent arrangements in place to conduct regular inspections, to address emerging, minor issues and to address condition problems where these materialised.

None of the schools we visited had developed long-term maintenance plans to efficiently manage school buildings and permanent fixtures across the assets' life cycles. Maintenance and renewal planning did not extend beyond the current financial year except where the school had secured funding for a building project. The resources available were only sufficient to fund a short-term approach to asset maintenance.

The department provides schools with access to the Schools Maintenance System (SMS) database. This provides schools with a system to describe outstanding maintenance priorities and to record when these works are completed. The SMS does not constitute a long-term maintenance plan. An adequate maintenance plan would:

- forecast and prioritise maintenance needs over a longer time period
- document how these maintenance needs will be addressed through planned and reactive maintenance and planned renewals
- forecast the cost of implementing the plan and identify funding sources
- require regular updating to reflect the latest knowledge of maintenance needs and the actual funding available for maintenance works.

For the schools we visited the SMS did not provide the type of maintenance planning described in the previous paragraph.

3.5.3 The department has adopted a reasonable, high level approach to the use of its available funding, but needs to review the detailed rules it applies to allocate funding to schools

The division of funds into a basic entitlement and targeted funding for emergencies and specific programs is reasonable

The evidence shows that central buildings maintenance funding falls well short of the amount required to adequately maintain these assets. In this context it is sensible to divide the available funding between a basic contribution towards routine maintenance and a contingency fund held to address the inevitable emergency situations arising from this approach.

The targeted program provides a mechanism for allocating additional, unforeseen funding to longer-term maintenance and renewal works that would not be completed as routine maintenance.

The allocation of a basic maintenance entitlement

On average \$29 million, or half of the recurrent funding for maintenance and minor works, has been distributed as a basic entitlement to schools. Of this funding stream:

- 50 per cent was allocated for maintenance and minor works (MMW) based on enrolment levels
- 25 per cent was allocated according to buildings condition and floor area
- 25 per cent was allocated based on the building material.

The process used to allocate this funding is complicated and difficult to verify. It has not been amended for at least 15 years. It is evident, however, that the enrolment-based allocation includes factors designed to weight the allocation towards areas of greater socio-economic need although these factors have not been updated. Furthermore, the condition related component does not take account of the results of the 2005 condition audit.

Figure 3B compares the allocation of this funding with the value of high priority maintenance works identified in the 2005 audit. We excluded schools that had received funding for a building project since 2005 because these projects should be addressing some of the high priority works.

Figure 3B
Shortfall or surplus of average maintenance and minor works funding
2005–2008 compared to the outstanding high priority maintenance works in 2005

School category	(1) Number of Schools	(2) Average Funding per school 2005–2008 (\$)	(3) High priority works per school 2005 (\$)	(2) – (3) Shortfall or surplus (\$)	Funding per student (\$)
Schools with largest shortfalls	50	52 143	177 549	-125 407	187
Schools with largest surpluses	50	169 976	31 777	138 199	165
All schools with no building project since 2005	1 246	43 810	28 412	15 398	160

Note: All figures used in the table are based on schools with no building project since 2005
Source: VAGO analysis of DEECD figures.

On average the 1 246 schools with no recent building project received \$43 810 in maintenance and minor works funding between 2005 and 2008. On average this more than covered the high priority works of \$28 412 identified in the 2005 audit.

The 50 schools with the largest shortfalls had on average \$177 549 of high priority works and received \$52 143 in maintenance and minor works funding leaving an average shortfall of \$125 407. The funding received by the schools with the largest surpluses exceeded the value of high priority works by an average of \$138 199.

Figure 3B shows that funding for these schools varied between \$165 and \$187 per student. In fact, the worse off schools were allocated more funding per student. However, schools with significant outstanding maintenance items received far less than schools with few works outstanding.

We conclude that the allocation system needs to be re-assessed as part of a wider review of maintenance planning.

The allocation of maintenance contingency funding

Of the \$11 million typically set aside for this purpose, \$2 million is distributed by regional offices and \$9 million by the department's central office. We found that schools would come to the regions or the central office when faced with an urgent maintenance problem that was beyond their resources to fix.

Regional offices deal with the smaller of these requests up to a value of around \$10 000 to \$20 000 and more significant funding requests went to the central office. We found that the central office had processes in place to adequately verify and respond to these requests.

Funding targeted renewals

The department designed programs of targeted maintenance and renewal to make best use of additional funding made available at short notice. These programs have been tailored to important areas of maintenance or community concern not normally covered by recurrent maintenance funding.

3.5.4 The department's research into alternative maintenance models makes it well placed to present government with options for improvement

The research recommended improvements in the way maintenance is planned and procured

The department let a contract to assess the adequacy of the current maintenance model and to recommend options for improving the planning and delivery of programs to maintain school buildings.

The report recommended:

- a preferred approach to procurement involving the use of regional panels of approved contractors to complete school maintenance works
- the transition of schools to a life cycle approach to maintenance as schools are upgraded under the *Victorian Schools Plan*. This involves taking a longer-term approach to delivering asset services by investing in preventative maintenance and renewal to cost effectively deliver the required standard of service over time.

The report acknowledged that moving to a life cycle model would require a reappraisal of the level of central funding, while the use of regional panels would raise the quality and reliability of maintenance works.

The department is proceeding with pilot studies to verify the likely impacts of these recommendations

The department has taken these recommendations forward by putting together tender documentation for several pilot studies. The first two pilot studies relate to the procurement arrangements for three of the nine regions and involve:

- establishing regional panels to provide schools with access to maintenance services from pre-approved suppliers
- appointing a facilities manager responsible for managing maintenance works for groups and clusters of schools.

A third pilot study will establish a full life cycle costing and preventative maintenance approach for a selection of new and replacement schools. This will test the model with a view to proposing that other schools shift to a life cycle model of maintenance.

3.5.5 Continuing with the current approach to maintenance will lead to further deterioration of the renewed asset base

The *Victorian Schools Plan* will address some of the outstanding maintenance works identified in the 2005 condition audit. However, continuing with historic levels of maintenance funding and expenditure will not be adequate to maintain these renewed assets.

The department needs to advise government of the consequences and alternatives

The widespread adoption of life cycle costing is likely to have significant funding implications and the department needs to formulate a comprehensive business case setting out the future maintenance options for government.

The current pilot studies should provide a solid basis for developing a comprehensive business case describing the options and a preferred approach to the future maintenance and renewal of school buildings.

Recommendations

The department should:

- 3.1 formulate a comprehensive business case of the costs and benefits of options for the future maintenance and renewal of all school buildings
- 3.2 support schools in moving to a longer-term approach to planning through the creation of five-year building maintenance plans.

3.6 Planning for building construction and refurbishment

3.6.1 The substantive basis for the initial funding commitment of \$1.8 billion to rebuild or reconstruct 500 schools by 2011 was undocumented

Up to August 2008 the government had announced around half of the 500 schools targeted for inclusion within the *Victorian Schools Plan* up to 2011.

We understand from our discussions with the department that the following factors were of relevance in framing the program:

- previous government policy commitments, for example to create specialist and selective entry schools
- the need for additional capacity in areas of high population growth
- the willingness of schools to come forward with merger proposals underpinned by strong community support
- the department's understanding of the problems faced by schools because of inadequate and outdated school buildings.

However, we did not find documentation within the department that adequately explained the basis for selecting schools for inclusion in the 2007 to 2011 phase of the plan.

3.6.2 The department needs to document and apply a clear process to prioritise schools for inclusion in its building programs

Priority setting should aim to achieve the government's policy objectives and inform government's choices most effectively

The audit's expectation was that investment would be targeted to have the maximum beneficial effect on educational achievement within the parameters set by the government's policy and previous commitments. Practically, this means funding committed projects and then allocating the remaining funds to where they are most needed and will provide the largest net benefit.

We found that a range of factors play some part in the selection of schools for inclusion within building programs

We examined the department's information on outstanding maintenance needs as measured by the 2005 condition audit and the maintenance funding received by schools since 2005. We noted that building project selection was more focused on schools with the more significant maintenance shortfalls.

However, there were many anomalies that we could not explain from the available information. For example, where:

- schools had been selected for inclusion even though, they had few outstanding maintenance works and had already received maintenance funding which more than covered these needs
- other schools had not been selected for inclusion despite having very large outstanding maintenance works and recent maintenance funding that fell well short of these needs.

The department advised that it had completed significant reform of the process for selecting schools to undergo capital works. The department characterised this as a move from a 'bottom up' approach where schools would lobby for funding to a more strategic, 'top down' approach that provides government with a greater capacity to make informed investment decisions.

We support the approach articulated by the department but have not found the evidence to demonstrate that this approach has actually been used to select schools for inclusion within building programs.

The department should apply clear processes to prioritise school building projects for inclusion within the *Victorian Schools Plan*

These examples may well be explainable through a better appreciation of the circumstances surrounding these decisions. We would gain assurance if the department documented the selection criteria and how these criteria had been applied to select and prioritise schools for inclusion within the *Victorian Schools Plan*.

Recommendation

- 3.3 The department should document and apply robust processes to assess the building needs of schools and use this to inform the selection of schools for inclusion within the government's building programs, to assist delivery of improved educational outcomes

3.6.3 The *Building Futures* process provides a strong framework for project planning focused on educational need

The *Buildings Futures* process provides for the structured development and delivery of a project and provides the opportunity to evaluate and learn from the outcomes.

3.6.4 Although the department is further developing the *Building Futures* process, it needs to include forecast maintenance costs as part of the project appraisal

In section 5.5.1 of this report we describe some of the ways in which the department has developed and improved the process in response to stakeholder feedback.

One area where there is room for improvement is in the project appraisal. Currently the value of a project is assessed based on its capital cost and the expected educational outcomes.

The appraisal should also include an estimate of the recurrent maintenance and renewal expenditure for the project and for the situation where the project did not go ahead. Decisions about building design, scope and quality will impact on the ongoing maintenance requirements and it is important that the appraisal includes an assessment of all the costs associated with a project.

This type of analysis would, for example, clearly illustrate the financial implications of using lesser quality materials in the initial design. In the UK the Government provides templates so that proponents routinely complete a ten-year analysis of the capital and ongoing maintenance requirements for the project.

Recommendation

- 3.4 The department should strengthen the *Building Futures* process by requiring the inclusion of longer-term maintenance plans and costs for the project proposal and for a base case, assuming the project does not go ahead.

3.7 Planning for relocatable classrooms and the risks posed by asbestos

3.7.1 The department has adequately planned for the construction and use of relocatable classrooms

The business case for the construction of relocatable classrooms under the *Victorian Schools Plan* sets out a clear rationale for this expenditure. The department applies adequate processes to plan for and manage relocatable classrooms.

During our field visits we found that six schools experienced problems with older relocatables but the new replacement program should address these issues as new units come on line.

3.7.2 The department applies clear and stringent processes to manage the risks posed by asbestos in school buildings

Our examination of the planning processes around asbestos showed that these were adequate and were well regarded by the department's regional offices and schools visited during our audit.

4 Delivering investment and maintenance actions

At a glance

Background

Good plans translate into effective programs when actions are delivered as intended. In this part we examine the implementation of plans to manage school building assets by assessing whether:

- the department has applied processes to adequately monitor the implementation of asset management plans
- asset management actions had been completed in accordance with agreed timeframes and budgets.

Key findings

- The department does not comprehensively track the timely and adequate completion of the maintenance works it funds.
- The department tracks the progress of building projects well.
- The department effectively manages the relocatable classrooms program and the asbestos program.
- The maintenance model does not provide the department with a thorough understanding of maintenance needs for all schools.
- The department performed adequately in managing projects around the specified timeframes and budgets.
- The programs for relocatable classrooms and dealing with asbestos risks have been implemented as planned.

4.1 Background

Good plans translate into effective programs when actions are implemented as intended. In this part we examine whether:

- the department had applied processes to adequately monitor the implementation of asset management plans
- whether asset management actions had been completed in accordance with agreed timeframes and budgets.

4.2 Processes used to monitor the implementation of asset management plans

4.2.1 The department does not comprehensively track the timely and adequate completion of the maintenance works it funds

The department has set up systems to monitor the completion of maintenance tasks by schools

School maintenance items are funded by the department through:

- recurrent funding for maintenance and minor works
- supplementary funding—for major/urgent items that cannot be funded by the school alone
- targeted funding—for specific programs like toilet blocks or roofing.

Schools are guided by the department to spend half of the recurrent funding on planned and the other half on reactive maintenance items.

The department has set up systems to record and monitor the expenditure on maintenance items by schools. These systems require schools to record the completion of planned maintenance items and to record other maintenance issues as they become apparent.

Several of the schools we visited did not keep these records up to date

Schools are responsible for updating the electronic database the department provides to record maintenance activities and needs. Our visits to 20 schools showed that there are schools where the data used by the department to monitor maintenance activities and expenditures was incomplete. Seven of these schools did not record all of their maintenance activities because of:

- time and resource constraints
- difficulties in understanding and operating the systems.

The department only checks maintenance expenditures when schools apply for additional (supplementary) maintenance funding

When schools apply for this type of funding, the department's central office thoroughly checks past expenditure and the record of works to ensure that maintenance funding has been used as intended. Based on our school visits, we found that four schools do not apply for supplementary funding and so are not subject to detailed departmental scrutiny.

4.2.2 The department tracks the progress of building projects well

An external program manager liaises with school-level staff to track the progress of most building projects

The department contracts a company to act as the program manager for more than 80 per cent of its building program. The program manager's role is to manage and co-ordinate all aspects of the assigned building projects including:

- planning
- design
- construction
- cost control.

Some of the smaller building programs, such as, the *Better Schools Today* program, are managed internally by the department in conjunction with external resources.

The processes for monitoring projects at existing schools, and new school projects, are different. In the case of existing schools, school management staff (including the principal) liaise with the department's building program manager to monitor building projects.

For new schools, the department uses the services of a planning committee during the planning and implementation phases of the project. The members of planning committees include:

- educational experts (principals and teachers)
- departmental representatives
- members of the local community, including local government.

The role of the planning committee includes:

- selecting the architect for the project
- developing the plan and scope for the project
- liaising with the program manager to monitor the progress of the project.

The program manager reports monthly to the department on the progress of building projects

To track the progress of building projects, the program manager:

- liaises with school and project staff or the relevant planning committee relating to each individual project
- collates information across all the school construction projects across the state
- presents it to the department in monthly reports.

These reports provide individual and collective project information on actual and budgeted expenditure, project risks and planned and actual timeframes.

The monthly reports are followed up by meetings with the department to discuss the key issues from the report. The department escalates the key risks to senior departmental personnel as required.

4.2.3 The department effectively manages the relocatable classroom program and the asbestos program

Relocatable classroom program

The department's relocatable program is managed and implemented by an externally contracted company. The department and regional offices both provide data and jointly supervise the management of the relocatables across the state.

From our review of departmental processes, and our school visits, we found that the department manages the relocatable classroom program satisfactorily to meet demand for classroom space across the state.

The department has robust processes to monitor the management of hazardous materials such as asbestos

The department requires all schools to have an asbestos management plan detailing the processes and actions required to deal with asbestos risks. All asbestos works conducted at the school for the last 30 years are recorded in the plan. An asbestos audit is mandatory at the completion of building works.

The department uses the services of a specialist external contractor to manage risks associated with asbestos.

The schools we visited had asbestos management plans in place that were based on their individual asbestos audits. All the visited schools were also very satisfied with the performance of the external contractor.

4.3 Information on the performance of the maintenance program

4.3.1 The maintenance model does not provide the department with a complete understanding of maintenance needs for all schools

The department relies on its systems for maintenance program information though some of this information is incomplete

The department's maintenance model provides a great deal of autonomy and flexibility to schools in the expenditure of funds. The department does not check whether all schools are using maintenance funding for its intended purpose. The department completes a detailed acquittal of maintenance funding only for those schools that apply for supplementary maintenance funding. We also found that some schools do not update the systems provided to record the completion of outstanding maintenance works and the addition of new maintenance needs.

The department cannot therefore rely on these records as a complete and accurate assessment of completed and outstanding maintenance works. The department stated that it provides reminders to schools about their obligations to complete these records.

The department has acted to strengthen these arrangements by delivering a compliance checklist

The department introduced a *School Compliance Checklist* in 2007 as an online web tool to support schools in meeting departmental, regulatory and legislative obligations. The checklist includes a facilities management component incorporating some maintenance sign offs.

We reviewed this compliance checklist that covers some aspects of buildings maintenance:

- compliance with departmental guidelines and required inspections for essential services
- appropriate building insurance
- adherence to the department's facilities procurement guidelines
- compliance with the department's building works quality standards and building works regulatory requirements
- reporting critical incidents where the safety of staff and students is at risk
- compliance with other requirements in relation to asbestos, emergency management planning and computer networks.

We noted that the checklist does not provide sufficient assurance about schools' maintenance expenditure or the completeness of the information meant to be entered into the School Maintenance System database.

The department needs to review the systems and processes it uses to understand schools' expenditure and outstanding maintenance works

All the schools we visited have a very good understanding regarding their responsibilities for health and safety issues, and essential services (for example fire service) maintenance. Schools, however, were often unclear about the department's requirement to record the completion of other planned and reactive maintenance works.

The department needs good data and systems to understand and reliably monitor the effectiveness of the school maintenance program. The department needs to improve the systems and processes schools use to record maintenance information as part of its review of the current maintenance arrangements. Part 5 of this report, on the evaluation of asset management programs, includes a specific recommendation in this regard.

4.4 Information on the performance of the buildings programs

4.4.1 The department performed adequately in managing projects around the specified timeframes and budgets

Figure 4A shows the results of our analysis of the records of expenditure and delivery timeframes for the projects managed by the department's external program manager. This information covers more than 80 per cent of the department's building projects.

Over the four-year period actual expenditure exceeded planned expenditure by 3.5 per cent

The table shows that the actual expenditure on buildings projects of \$1.19 billion was close to the budgeted amount of \$1.15 billion. The difference is explained by some projects having to draw on contingencies to address risks that materialised after the initial project planning. A few projects had experienced more significant overruns.

The percentage difference between actual and budgeted expenditures had fallen over time. Overall we consider the management of the program to be adequate in relation to actual and budgeted expenditures.

Figure 4A
Performance for building projects managed by the department's
contracted program manager (2004–08)

	Year project commenced				Overall
	2004–05	2005–06	2006–07	2007–08	
Budgeted expenditure (\$)	168 276	211 662	354 301	418 157	1 152 396
Actual expenditure (\$)	177 226	220 232	365 684	429 220	1 192 362
Total number of projects commenced	76	59	88	82	305
Total spending over budget (%)	5.3	4.0	3.2	2.6	3.5
Number of projects with defined timeframes:					
• Early	22	19	14	21	76
• On time	17	4	6	18	45
• Delayed	37	35	46	31	149
Total	76	58	66	70	270
Number of projects at design/tender stage ^(a)	0	1	22	12	35
Average delay (months)	2.2	1.6	2.5	0.8	1.8

(a) These projects did not have information on scheduled and actual timeframes at the time of the audit.

Source: Department of Education and Early Childhood Development building program manager monthly reporting.

Overall, the department has put in place adequate arrangements to manage the delivery of school buildings projects consistent with agreed timeframes.

Figure 4A shows that the average delay in delivering projects has fallen over the four-year period from 2.2 months in 2004–05 to less than one month in 2007–08. The delays experienced by most projects have been small and have not significantly affected the project outcomes.

Over the four-year period the average delay across all projects was 1.8 months with 45 per cent of projects delivered on or before the time scheduled

We noted a small number of projects suffering more significant delays due to issues such as soil contamination and land acquisition issues. We found these materialising risks were appropriately scoped and actively managed by the department.

4.5 Information on the performance of the relocatable classrooms and asbestos programs

4.5.1 The programs for relocatable classrooms and dealing with asbestos risks have been implemented as planned

The department uses relocatable classrooms to cater for short-term changes in student enrolments and other issues such as emergencies and building works. The department has contracted an external company to manage the movements of relocatables across the state, based on advice by the department. From the schools we visited and the documents reviewed the relocatable classrooms program is performing satisfactorily.

The department's management of asbestos in schools has been contracted externally to a specialist. The contractor responds promptly to issues related to asbestos that arise. All the schools we visited were very satisfied with the performance of the external contractor regarding the management of asbestos issues.

5 Evaluating and improving the management of school buildings

At a glance

Background

Effective asset management requires an understanding of how well current programs are working and the ability to adapt to changing circumstances and demands. To do this the department needs to evaluate the impacts of its asset management program and translate these findings into improved plans and practices.

Key findings

- We found that the department has performed well in:
 - providing a basis to measure and track asset condition and outstanding maintenance works
 - recognising the need to improve the systems used to assess and track asset condition and outstanding maintenance works
 - evaluating the success of some major building projects through post occupancy reviews.
- The condition audits and the database systems used to track maintenance should be improved to provide a more up-to-date and comprehensive picture of outstanding maintenance works.
- Our visits to schools showed that, for three of the four schools recently assessed, the post occupancy reviews detected most, but not all of the performance issues raised by these schools.
- The department needs to review and strengthen the processes it uses to evaluate building projects.
- Past investment in school buildings has not been adequate to create, renew and maintain an asset base fit to deliver a modern curriculum using preferred teaching methods.
- The *Victorian Schools Plan* represents a major step towards redressing this shortfall by investing more in the construction and renewal of school buildings.
- The department needs to advise government of options to sustain the services from the renewed asset base created by the *Victorian Schools Plan*.
- We have seen evidence of the department working to improve asset management while noting initiatives that remain incomplete.

At a glance - *continued*

Key recommendations

The department should:

- upgrade its asset management information systems to improve the way school buildings are maintained and renewed (**Recommendation 5.1**)
- strengthen the processes used to validate the comprehensiveness and accuracy of the information collected through condition audits as it moves to a new approach that monitors asset condition (**Recommendation 5.2**).
- strengthen its building evaluation processes by:
 - applying and documenting a structured and comprehensive approach to capture performance issues
 - reviewing and where required strengthening the post occupancy review processes so that they adequately detect and report on significant performance issues (**Recommendation 5.3**).

5.1 Background

Effective asset management requires an understanding of how well current programs are working and the ability to adapt to changing circumstances and demands.

In this part, we assess whether the department and schools have:

- adequately measured the quality and effectiveness of maintenance and buildings programs
- been effective in delivering the services required from school buildings assets
- used this information to refine and improve asset management plans and practices.

5.2 Evaluating maintenance programs

5.2.1 The department applies processes that provide a satisfactory basis to measure and track asset condition and outstanding maintenance works

Regular, five-yearly condition audits provide a valuable measure of asset condition

The department commissions a condition audit of all government school buildings every five years, with the last audit completed over a three-month period in 2005. The auditors are armed with building plans sourced from the Schools Asset Management System (SAMS) database and apply a structured approach to measuring asset condition. Schools are given the opportunity to review the list of outstanding works before these are finalised.

The department's commitment to regularly measure asset condition is commendable. The department uses these condition audits to plan maintenance activities and measure the adequacy of maintenance programs.

The Schools Maintenance System (SMS) database can reliably track outstanding maintenance works

The list of outstanding maintenance works is stored on this database. The department and schools are able to access this database to record and monitor where outstanding maintenance issues have been resolved, and where new condition problems have arisen. Given the monitoring capability of the system, the department does not comprehensively monitor outstanding maintenance works across all government schools in Victoria.

Taken together, the condition audit and the database have the potential to capture both the current condition and outstanding works across the school buildings portfolio.

5.2.2 The condition audits and the database systems used to track maintenance should be improved to provide a more up-to-date and comprehensive picture of outstanding maintenance works

Half the schools we visited had concerns around the condition audit's comprehensiveness and their lack of expertise to properly review the condition audit findings

In total 10 schools had concerns about these issues.

Six of the 20 schools we visited reported concerns that some maintenance problems had not been captured by the condition audit. The most common perceived omissions related to assets that were difficult to inspect, such as high roofing and buried infrastructure. These concerns were not resolved through the audit review process.

Six schools we visited, including two of the above-mentioned schools, were concerned that a lack of infrastructure expertise meant staff did not pick up issues not seen by the contractors.

Nine schools we visited, did not maintain up-to-date records of maintenance on the School Maintenance System database

During our visits we found that nine schools did not record all the outstanding works completed and the new maintenance needs that had arisen. These schools found the use of the system difficult and time consuming.

The time between condition audits means that the database plays an important role in providing a current view of outstanding maintenance works. Over a five-year period there is scope for significant changes to asset condition, so it is important that these changes are recorded. This database is a key planning and evaluation tool and it is important that the department understands the extent to which schools update the information within it.

5.2.3 The department has recognised the need to improve the systems used to assess and track asset condition and outstanding maintenance works

The department plans to move to a rolling condition audit to improve the accuracy and comprehensiveness of the information

The previous condition audit program, visiting every government school in a three-month period was very demanding. The department acknowledged the time pressures created by such a tight schedule and recognised that this might have affected the comprehensiveness and accuracy of the condition audit.

The department plans to move to a revised program auditing 20 per cent of government schools each year. This will not reduce the gap between condition audits for any school but is likely to enhance the comprehensiveness and quality of the assessments.

The department has recognised the need to update and improve its database systems for the management of school building assets

In our view there is a strong business need to improve the usage and effectiveness of these systems. Some schools find the SMS database difficult and do not routinely use it to update information. The last condition audit found that around half the school plans held on the SAMS database were out of date.

We agree with the department's assessment that these systems need to be improved. Any proposal should take a 'whole of system' view, considering how best to achieve the required outcomes through a combination of software, training and user interface improvements.

Recommendation

- 5.1 The department should upgrade its asset management information systems to improve the way school buildings are maintained and renewed.

The department should use the opportunity provided by a new survey approach to strengthen the processes used to validate the condition audit results

A small sub-sample of the schools audited should be selected for a follow up visit to validate the results of the condition audit process. This would confirm whether the department was addressing the issues of comprehensiveness and accuracy raised by some of the schools we visited.

The department should also compare the actual cost of completed works with the corresponding unit rates used during the five-yearly condition audit. The unit rates should be adjusted in line with actual costs and increased to allow for inflation.

Recommendation

- 5.2 The department should strengthen the processes used to validate the comprehensiveness and accuracy of the information collected through condition audits as it moves to a new approach that monitors asset condition.

5.3 Evaluating building programs

5.3.1 The department has applied adequate processes to evaluate the success of some major building projects through post occupancy reviews

The department has completed post occupancy reviews for several recent school building projects

As at September 2008, the department was in the process of reviewing 60 of approximately 250 major building projects finalised since 2004. Major projects are considered to be those with a value in excess of \$500 000. The previous review of 70 projects was completed in late 2005 and covered building projects implemented in 2001–02 and 2002–03.

From our discussions, the department aimed to review projects:

- where feedback to the regions and the department's central office showed the school had experienced difficulties
- that were of higher value, including all new school construction.

Post occupancy reviews aim to evaluate the success of a project and provide information so that improvements may be applied to future projects. The reviews are managed by the company contracted to manage the department's capital program.

The program manager is responsible for arranging the completion of:

- a report documenting the project's performance against the intended timeframes, budget and scope
- questionnaires on the project delivery and outcomes completed by school representatives and, optionally, by the department. The questionnaires include comments and quantitative rankings of the performance of the upgraded buildings across a number of categories
- an on-site meeting and inspection involving the school, the contractor managing the project on behalf of the department, a contractor representative and departmental representatives
- a final report, prepared by the program manager, summarising the outcomes and identifying areas for continuous improvement.

The department uses the results to inform its 18 month updates of the *Building Quality Standards Handbook*.

The department has plans to evaluate smaller projects not included in the post occupancy reviews

The department is planning to apply a structured approach to evaluate the performance of project managers engaged under the *Better Schools Today* program. This program has so far committed \$56 million between 2007 and 2009 as part of the *Victorian Schools Plan*. The program funds smaller upgrade and modernisation projects ranging between \$300 000 and \$500 000.

5.3.2 Post occupancy reviews detected most but not all of the performance issues raised by the schools visited

Of the 20 schools we visited eight had recently been through a building project. Four of these schools had been subject to a post occupancy review.

All of the eight schools with recent building projects, raised issues related to the scope, design and implementation of building projects which, in their view, adversely affected performance. We wanted to understand whether the department's processes had detected and evaluated these issues.

We found a range of performance issues during our school visits

The eight schools we visited with recent experience of building projects raised the following issues:

- Three schools highlighted the lack of storage space incorporated into the school's design. Schools had subsequently built more storage space and in one case the location of this storage had negated the function of an internal wall designed to control the temperature of the internal space.
- Three of the new schools we visited were concerned about the use of domestic rather than commercial quality materials for some fixtures. This had resulted in more frequent and costly maintenance to fix or replace parts.
- Two schools had ongoing problems with their heating and cooling systems because they did not perform adequately to control temperature.
- One school had experienced major flooding where a modernisation project had located school buildings in an overland flow path—the path water will take when there is heavy rain.
- Three schools noted that the provision of power outlets in their new facilities was poor in terms of quality or location.
- Two schools thought the landscaping and pathways around completed building works had been inadequate and led, in one case, to water pooling and the subsequent damage to carpets as children carried mud into the classroom.

These issues increased the maintenance burden for the schools concerned, both in terms of staff time and the money required for ongoing maintenance.

The majority of school staff responsible for planning and supervising building and maintenance programs at the 20 schools we visited, found these duties a significant distraction from their other core management and teaching duties. Many of these staff felt ill equipped to carry out this role effectively. In any proposal to amend the existing maintenance and building systems the department should consider how it might best support these staff.

The department was clear that decisions about project scope were made at a local level

We consulted the department about these issues. The department was clear that the project scope is agreed by all parties prior to work commencing to ensure that service delivery will not be compromised. Furthermore the department stated that school councils make decisions that will exclude items, such as additional storage and higher quality fixtures, in order to maximise funding towards other priorities. It is the department's position that these conscious decisions are made at the local level.

We do not have sufficient evidence to determine whether school communities consciously and willingly traded off these attributes in favour of other priorities

All but one of the eight schools we visited with a recent building project did not have the same leadership team as was in place when the project design and scope was finalised. We understand that the school is responsible for planning the building project with the department's support. However, we do not have the documentary evidence to show that schools consciously made these tradeoffs.

This argument does not apply to the situation where a building was located in the path of water flowing during heavy rainfall. This is simply a poor design decision that did not comprehend or take account of this risk. This school, despite this significant failure, was not selected for a post occupancy review.

The post occupancy reviews detected and accurately reported many of the issues raised by the schools we visited

We reviewed the material generated by the post occupancy reviews available for four of the schools in our selection of 20 to determine whether they detected and dealt with the issues identified at these schools.

We found that the post occupancy reviews had adequately detected and rated issues relating to:

- landscaping
- acoustics
- traffic management/car parking.

The final reports of post occupancy reviews did not adequately reflect some of the issues raised by the schools

We found examples where the final post occupancy review report did not include issues raised as significant by some of the schools we visited. For example:

- One of the four schools we visited that were subject to a post occupancy review had highlighted inadequate storage space as an issue. The school response questionnaire had rated storage as 'poor' but the final report rated this as 'satisfactory'. How the final report determined this rating is not understood by audit.
- Two of the schools we visited raised the variance in temperature between different parts of the school as a significant issue. The post occupancy reviews for these schools did not identify this as an issue.

5.3.3 The department needs to review and strengthen the processes it uses to evaluate building projects

The department should develop a structured and comprehensive approach to capture the performance issues

One way of doing this is to adopt a two stage approach to evaluation as follows:

- short questionnaires completed by the program manager and school for every building project to identify the key performance issues and to rate their significance
- post occupancy reviews targeted at schools and informed by the short questionnaire responses and the type and scale of project.

The department should also examine the post occupancy review to make sure that the current processes adequately detect and report significant performance issues.

Recommendation

- 5.3 The department should strengthen its building evaluation processes by:
- applying and documenting a structured and comprehensive approach to capture performance issues
 - reviewing and where required strengthening the post occupancy review processes so that they adequately detect and report on significant performance issues.

5.4 The effectiveness of the asset management program

5.4.1 Past investment in school buildings has not been adequate to create, renew and maintain an asset base fit to deliver a modern curriculum

This report established that historical levels of investment to construct, refurbish, renew and maintain assets had been inadequate. This had resulted in an asset base that was largely old and ill equipped to meet the current and future learning needs of students.

Levels of maintenance expenditure had led to a situation where there was \$230 million of outstanding maintenance works recorded in the 2005 condition audit. Central maintenance funding had not kept pace with inflation and overall funding and expenditure had not been sufficient to maintain the asset base as a whole.

5.4.2 The *Victorian Schools Plan* represents a major step towards redressing this shortfall by investing more in the construction and renewal of school buildings

This report described how the government's commitment to the *Victorian Schools Plan* marked a change in the level of investment applied to rebuild government schools in Victoria.

The initial funding commitment has doubled the resources available for school construction and renewal. This will be followed by further funding out to 2017 to address the building needs of other government schools not yet included in the program.

5.4.3 The department needs to advise government of options to sustain the services from the renewed asset base created by the *Victorian Schools Plan*

The *Victorian Schools Plan* will go some way towards addressing the outstanding maintenance works identified in the 2005 condition audit. The department needs to advise government on the levels of maintenance and renewal funding and expenditure required to sustain the benefits of this program up to and beyond 2017.

The evidence we have reviewed shows that a continuation of current levels of maintenance funding and expenditure will not adequately maintain the renewed asset base. Sustainable asset management requires that an estimate of the ongoing maintenance and renewal costs should underpin any capital funding program.

The department should estimate the cost of properly maintaining school buildings assets. This information along with the implications for asset condition and service levels of alternative levels of investment should be used to inform government about the options for the long-term management of school buildings.

5.5 Improving the management of school buildings

5.5.1 We have seen evidence of the department working to improve asset management while noting initiatives that remain incomplete

The areas where the department is already working to improve its asset management processes and practices include:

- research to develop and pilot more effective and efficient maintenance planning and delivery
- the implementation of a compliance checklist to better acquit schools' use of central maintenance funding
- documenting maintenance procedures to ensure that access to this knowledge is not dependent on retaining one or two key staff
- amending the *Building Futures* process in response to feedback from schools and regions and developing an evaluation method to promote further improvement
- developing a proposal to upgrade its asset information systems.

Developing more effective maintenance planning and delivery

In this report we described the department's work to research and pilot more effective approaches to maintenance planning and delivery. We noted the need to use the results of these pilots to inform government of the future options for building maintenance.

Implementing a compliance checklist

The department introduced a *School Compliance Checklist* in 2007 as an online web tool to support schools in meeting departmental, regulatory and legislative obligations. We reviewed this in the report and noted that it does not provide sufficient assurance about schools' maintenance expenditure.

The improved documentation of maintenance processes and systems

The department has engaged a contractor to document the data structures and processes relating to the department's maintenance support systems. This project has been initiated in response to the impending departure of key personnel who hold much of the essential business knowledge in their heads. The department needs to complete this project to prevent the loss of this internal knowledge.

Amending the *Building Futures* process and devising an evaluation framework

We have seen evidence that the department has responded to suggestions by regional offices and schools to improve the process. As a result the department:

- has amended application forms to make their completion easier for schools
- now provides feedback on all *Building Futures* applications, rather than only those that did not get approved to move to the next stage.

The department has also contracted an evaluation framework for the *Building Futures* process. The evaluation framework measures the success of the program's improvement of educational outcomes. The framework now needs to be finalised and applied.

Replacing the existing asset management information systems

The department's systems that support asset management are 15 years old and require a high level of manual intervention to satisfy the department's and schools' requirements. The *Land and Building Information System* has been proposed to replace these systems. This will consolidate disparate sets of data, enhance data quality and improve the interface with departmental and school users.

There is a strong case for updating these systems and the processes to achieve improvements in data integrity, reliability and cost effectiveness.

Appendix A.

List of schools and regional offices visited

Figure A1
Schools visited during the audit

Location	Region	School name	Type	No. of students	Current building program
Metro	Northern Metro	Coburg Primary School	Primary	179	No
Metro	Northern Metro	Sunbury Heights Primary School	Primary	386	No
Metro	Southern Metro	Berwick Fields Primary School	Primary	527	No
Metro	Southern Metro	Carrum Downs Secondary College	Secondary	1 093	No
Metro	Southern Metro	Doveton Heights Primary School	Primary	162	Yes
Metro	Southern Metro	Noble Park Special Developmental School	Special	152	Yes
Metro	Southern Metro	Springvale South Primary School	Primary	229	Yes
Metro	Western Metro	Bayside Secondary College	Secondary	1 556	Yes
Metro	Western Metro	Kings Park Primary School	Primary	539	No
Metro	Western Metro	Strathmore Primary School	Primary	461	No
Metro	Western Metro	Victorian College of The Arts Secondary School	Secondary	276	Yes
Semi-rural	Eastern Metro	Healesville High School	Secondary	451	No
Town	Hume	Myrtleford Secondary College	Secondary	162	No
Town	Hume	Yarrawonga Secondary College	Secondary	423	Yes
Town	Loddon-Mallee	Echuca College	Secondary	992	Yes
Town	Loddon-Mallee	Maryborough Education Centre	Prim/Sec	1 239	No
Rural	Hume	Middle Indigo Primary School	Primary	27	No
Rural	Hume	Puckapunyal Primary School	Primary	218	Yes
Rural	Loddon-Mallee	Harcourt Valley Primary School	Primary	87	Yes
Rural	Loddon-Mallee	Marong Primary School	Primary	46	No

Source: Department of Education and Early Childhood Development.

Figure A2
Regional offices visited during the audit

Region name	Location
Eastern Metropolitan Region	Glen Waverley
Hume Region	Benalla
Loddon-Mallee Region	Bendigo
Northern Metropolitan Region	Coburg
Southern Metropolitan Region	Dandenong
Western Metropolitan Region	Parkville

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Report title	Date tabled
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Records Management Checklist: A Tool to Improve Records Management (2008-09:2)	July 2008
Investing Smarter in Public Sector ICT: Turning Principles into Practice (2008-09:3)	July 2008
Private Practice Arrangements in Health Services (2008-09:4)	October 2008
Working with Children Check (2008-09:5)	October 2008
CASES21 (2008-09:6)	October 2008

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