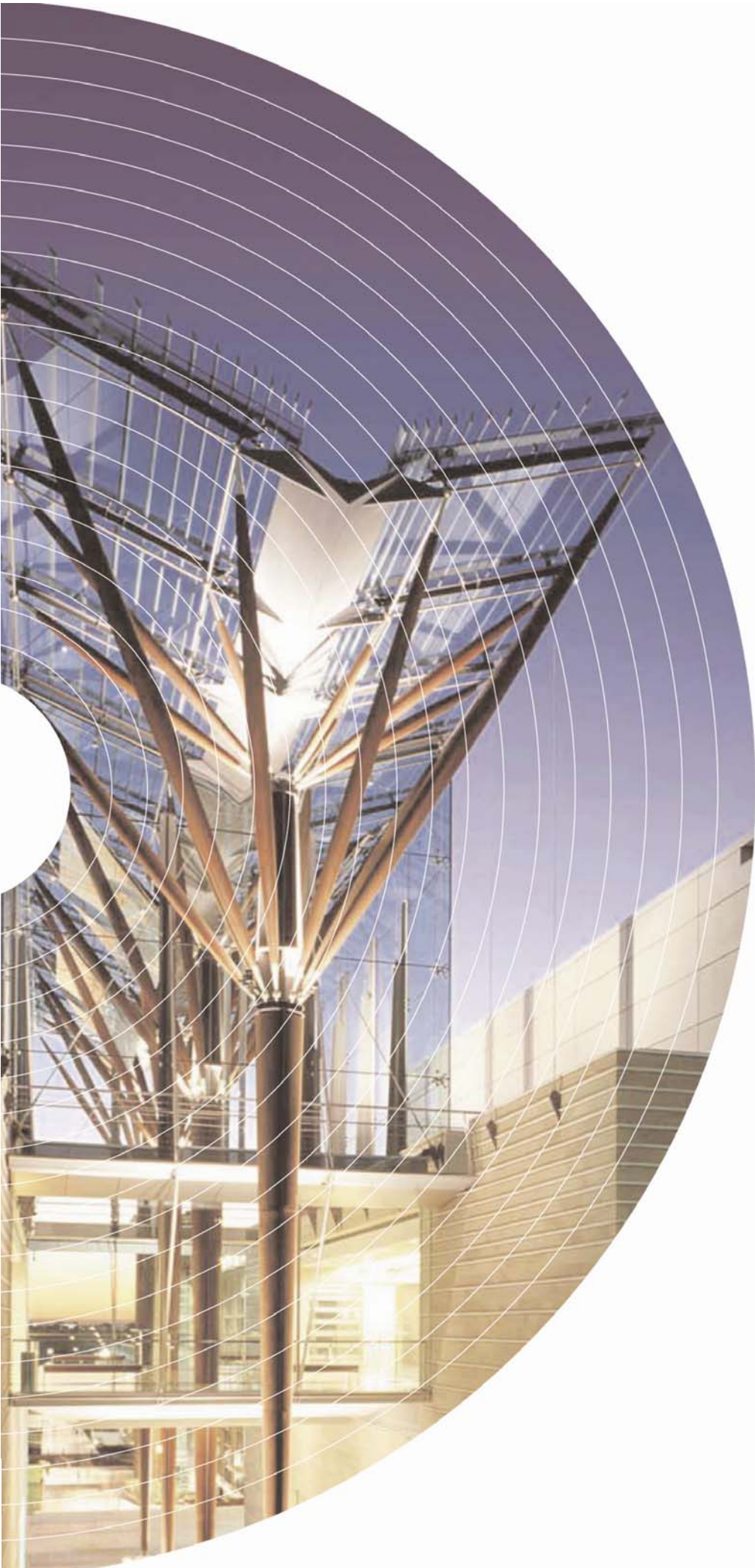


Facilities
Management
April 2006

2006 - 2010
Strategic Asset Management Plan



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Preface

The Strategic Asset Management (SAM) Plan is a strategic overview of how the University of New South Wales (UNSW) manages its physical assets of property, plant and equipment. It explains what strategic asset management is and how UNSW approaches the task of implementing it.

This document is also available on the University's website at <http://www.facilities.unsw.edu.au/Planning/sam.htm>.

The SAM Plan is reviewed annually as part of the University's budget review and the rolling five-year forecast of asset expenditure as summarised in the Asset Management Forecast (AMF).

The SAM Plan is also a companion document to the SAM Resource and Information Manuals produced by UNSW that contain detailed information on the following:

- Property portfolio/asset register;
- Terms of reference and procedures for committees relevant to SAM;
- Policies relevant to SAM;
- Space management;
- Project process;
- Maintenance process;
- Glossary of terms.

Further information on these manuals can be obtained by contacting UNSW Facilities Management.

Introduction to UNSW

UNSW is one of the leading teaching and research universities in Australia, renowned for the quality of its graduates and its commitment to new and creative approaches to education and research. It is also a foundation member of the Group of Eight leading research universities in Australia, and the Universitas 21 international consortium, which reflects its academic standing worldwide.

UNSW has a strong international profile based on Australia's largest on-campus enrolment of international students, its distinguished research record, the strong relationships it has formed with more than 200 overseas universities and on the quality and diverse background of its staff.

There are more than 40,000 students including over 8,800 international students from over 120 different countries, and an additional 1,800 international students in pre-University programs. There are more than 6,000 academic, general and casual staff.

The University has ten Faculties: Arts and Social Sciences, the Built Environment, the College of Fine Arts, Commerce and Economics, Engineering, Law, Medicine, Science, the Australian Graduate School of Management (in partnership with the University of Sydney), and [UNSW@ADFA](#) (Australian Defence Force Academy) in Canberra. It offers more than 450 academic programs in 70 Schools, five institutes and six teaching hospitals.

With more than 70 Research Centres and 12 government-funded cooperative research centres it is home to a number of internationally recognised research developments in the fields of quantum computing, photovoltaics, HIV AIDS research, interactive cinema and polymer chemistry.

UNSW has built on its strengths in science and technology by developing a wide range of cooperative arrangements with government and industry via its Schools, Faculties and through Unisearch Ltd, and has more than 180 industry sponsors.

The main campus at Kensington is highly regarded architecturally and provides a quality educational, communal and working environment for students and staff. Study and research facilities are comprehensive and there are extensive social and recreational facilities with sport and recreation clubs, social, political and religious clubs and societies, cafes and shops.

In addition to the Kensington campus, UNSW has three other campuses in the Sydney metropolitan area at Paddington, Randwick and Coogee, sports fields at Botany and six field stations in rural NSW.

Interactive maps of UNSW Campuses to assist in finding buildings and amenities are available at <http://www.facilities.unsw.edu.au/Maps/maps/html>.

Part 1: Strategic Asset Management

The scope, principles and fundamentals of strategic asset management

1.1 Strategic Asset Management Defined

Strategic asset management (SAM) is the planned alignment of property assets with service demand so that an organisation can match its assets with its service delivery strategies. Decision-making is managed over the entire life of the assets.

A strategic approach to asset management focuses on the outcome or purpose rather than the operational issues of what, or how, tasks are being carried out. It requires answers to the following questions:

- What is the purpose of the asset?
- What needs are being provided for?
- Can these needs be provided by other means?
- Should they be provided at all?

A SAM Plan takes into account a wide range of matters such as an organisation's corporate plan, stakeholder needs, the availability of funding and changes in technology. In doing so, it ensures that an organisation's assets meet its future needs effectively and efficiently.

A SAM Plan is a dynamic document that cannot stand alone from other activities of the organisation.

1.2 Objectives

Key objectives of SAM are to:

- Facilitate the achievement of an organisation's strategic and service delivery objectives;
- Guide the acquisition, use and disposal of assets;
- Improve the performance and life of existing assets by ensuring that they are functional, appropriately located, fully utilised and effectively maintained;
- Reduce the demand for new assets by considering non-asset solutions such as demand management strategies and alternative service delivery options;
- Maximise the benefits of asset investment by rigorous project initiation and evaluation using techniques such as risk assessment, economic appraisal, life-cycle costing and value management;
- Minimise risks and costs over the entire life of assets;
- Maintain adequate asset information for informed decision-making.

1.3 Principles

SAM is based on the following principles:

- Assets exist to support service delivery objectives;
- Asset planning is integrated with the strategic planning of the non-physical assets of human resources, information technology and finance;
- Asset planning time frames equate with those of corporate planning;
- Asset management decisions are based on an evaluation of options that consider costs, benefits and risks;
- Both capital and recurrent costs (life cycle costs) are reflected in budgets;
- Non-asset solutions are also considered when decisions are made in order to achieve service delivery objectives;
- Responsibility for assets, including accountability and reporting requirements, is clearly established, communicated and implemented.

1.4 Asset Life Cycle

There are four stages in the life of an asset.

Planning - the need for an asset is identified, together with options to achieve service delivery outcomes.

Capital Investment - the asset is purchased, constructed or leased for its intended purpose.

Maintenance and Operations - the asset is used for its intended purpose and is repaired, maintained, refurbished and managed.

Disposal - the asset is disposed of when its economic life has expired or when the service provided by the asset is no longer needed.

Asset management decisions in one stage of the asset life cycle can affect the asset's performance in other stages. Therefore, asset planning that is limited to one or two stages is not strategic and will not result in sound long-term decision-making.

1.5 Strategic Asset Management Process

A SAM Plan operates within a broader process that links an organisation's goals with the delivery of services. There are four main areas continuously linked by monitoring, reporting and modification as shown in the following figure.

Figure 1: Strategic Asset Management Process

| Inputs → | Strategic Directions → | Planning → | Outputs |
|---|---|---|--|
| Mission and goals Policies Agreements & contracts Reports, audits reviews Statutory requirements Stakeholder needs Community expectations | Corporate plan Service delivery strategy Business/operational plans | Human resources plan Information technology plan Financial plan Environmental Management plan SAM Plan <ul style="list-style-type: none"> ▪ Asset strategy ▪ Capital investment plan ▪ Maintenance and operations plan ▪ Disposal plan ▪ Non-asset solutions | Service delivery Capital works Benchmarks Key performance indicators Standards Databases Reports |
| MONITORING → REPORTING → MODIFICATION | | | |

1.6 Strategic Asset Management Plan

A SAM Plan is the document which describes how an organisation matches its physical assets to the strategic directions expressed in its corporate plan, service delivery strategy and business/operational plan. It defines the relationship between these high-level documents and the lower-level outputs of service delivery, capital works and other operational matters.

The SAM Plan should integrate with the Human Resources Plan, IT Plan, Financial Plan and Environmental Management Plan in order to maintain the focus on the delivery of services. It also needs to be integrated into the annual budgeting cycle.

The SAM Plan adopts the asset life-cycle approach with plans and strategies for the planning, capital investment, maintenance, operation and eventual disposal of assets.

A SAM Plan typically has the following major components.

1.6.1 Asset Strategy

The Asset Strategy enables an organisation to establish the asset portfolio that best meets its service delivery requirements. It determines whether assets should be acquired, upgraded, maintained or disposed of. It should also include a description of the asset portfolio.

Analysing five fundamental service delivery characteristics of assets helps form the basis of an Asset Strategy.

Location – more effective service delivery may result from a more appropriate location of assets, depending on the nature of services being provided. Demographic changes, new marketing strategies and organisation restructuring can also affect the demand for services and therefore the location of assets.

Dependency – service delivery can be made less asset-dependent by the use of non-asset or less asset-intensive solutions, and/or cross-departmental asset sharing.

Utilisation – assets can be more fully utilised by changing work hours, sharing work spaces, allocating surplus capacity to other units, leasing the surplus to external agencies, or disposing of the asset altogether.

Capacity – capacity to provide the required services can be increased by expanding the asset area such as adding extra floors to a building.

Functionality – ensuring assets are suitable for optimal delivery of services is important. Functionality can change over time due to changes in client expectations, legislation and technology. Retrofitting, refurbishing or upgrading an asset rather than replacing or disposing of it, can improve its functionality.

1.6.2 Planning

Planning assesses and selects the best options for capital investment projects, maintenance and the disposal of assets on the basis that the asset strategy has identified the need for such projects. The level of assessment depends on the size and complexity of a project and/or its funding time frame.

1.6.3 Capital Investment Plan

Capital investment is undertaken when the asset strategy indicates the need for investment in new assets or significant upgrading of existing assets. This can include the acquisition of property, construction of new buildings, refurbishment or extension to existing buildings, new infrastructure and upgrading of existing infrastructure.

1.6.4 Maintenance & Operations Plan

Maintenance refers to all actions necessary for retaining an asset in a condition in which it achieves its original specified performance, or restoring it to that condition. Operations refers to actions necessary to make a building useable for its occupants, such as operating plant and equipment, cleaning, security, waste disposal and the provision of gas, electricity and water.

The asset strategy will have already defined those assets that are to be maintained and over what period of time. The maintenance and operations plan further identifies the type and level of maintenance required, use and condition, and the resources needed to deliver the maintenance and operational services.

1.6.5 Asset Disposal Plan

Asset disposal is the final stage of the asset life cycle. It ensures that an asset portfolio comprises only those assets that effectively meet an organisation's service delivery requirements at the lowest long-term cost. An asset becomes surplus if it is no longer required, is unsuitable for the delivery of services, or is uneconomical to maintain and/or operate.

1.6.6 Non-Asset Solutions

Non-asset solutions should also be evaluated as to their ability to meet service delivery objectives. Non-asset solutions include:

- Demand management strategies (eg education, pricing, technological innovation, management procedure);
- Alternative procurement strategies (eg leasing); and
- Outsourcing resources and service delivery.

1.7 Assessment & Decision-Making Tools

The following tools can be used to assist in the assessment and decision-making process to facilitate and improve asset management.

1.7.1 Financial & Economic Appraisal

Financial appraisal assesses the viability of a project based on the direct effects on the cash flow of the organisation. It differs from economic appraisal in its scope, the range of impacts analysed and the methodology used.

Economic appraisal is a more comprehensive method of analysing project costs and benefits and uses either cost-benefit analysis or cost-effective analysis to assist decision-makers. It also differs from a financial appraisal in that it measures the external benefits and costs of a project.

1.7.2 Risk Analysis & Management

Risk analysis and management is a process to identify risks, assess their likelihood and consequences and develop appropriate responses to manage them. It is essential at all stages of the asset life cycle whenever significant decisions are required.

Identifying, assessing, prioritising and managing risks throughout the asset life cycle helps to meet service delivery objectives more efficiently and reduces the likelihood of financial loss or the loss of an organisation's reputation.

Risk is measured as a combination of likelihood and consequence usually analysed in a scored matrix.

1.7.3 Value Management

Value management is a structured and analytical process for delivering innovative and holistic solutions at the lowest total cost consistent with required levels of quality and performance. It can be used to:

- Test and validate assumptions;
- Identify and confirm stakeholder values;
- Establish principles and objectives;
- Prepare, develop or review a brief;
- Consider concept and design solutions;
- Generate stakeholder commitment;
- Clarify life cycle costs;
- Prepare or review action plans.

1.7.4 Life Cycle Costing

Life cycle costing is used primarily in infrastructure projects to analyse and evaluate the total costs of an asset throughout its life. It employs the same techniques as those for economic appraisal in that future costs are discounted to today's dollar value using Net Present Value.

The life cycle cost of an asset is the total of all the significant costs of ownership over its life, or for the period the asset is held. These include the costs of acquiring, installing, operating, maintaining, refurbishing and disposing of an asset.

Life cycle costing can be carried out during any or all stages of the asset life cycle, although decisions made early in the asset life cycle have a greater influence on life cycle costing than those made later.

1.7.5 Sustainable Development Assessment

Sustainable development is that which meets current needs without compromising the ability of future generations to meet their needs. Fundamental to sustainable development is that human communities and economies are not separate from the environment.

An organisation should integrate sustainable development assessment across its whole operating environment to ensure that its activities will benefit the community, the economy and the environment.

1.7.6 Benchmarking

Benchmarking measures the performance of an organisation against the best practices of others, determining how they achieve those performance levels and using the information to determine new targets and strategies to achieve better performance.

The performance areas that an organisation typically targets for benchmarking are quality, speed, dependability, flexibility and cost.

There are six types of benchmarking:

- Internal benchmarking;
- External benchmarking;
- Functional/generic benchmarking;
- Strategic benchmarking;
- Performance/competitive benchmarking; and
- Process benchmarking.

1.7.7 Post-Completion Review

A post-completion review compares the actual performance of a project with the stated objectives of the original brief and assesses whether improvements could

have provided better value and asset performance. The review feeds into the SAM process as an input to the next asset life cycle.

There are five types of post-completion reviews:

- Economic review;
- Brief compliance review;
- Procurement/delivery process review;
- Asset performance review (post occupancy evaluation); and
- Technical review.

Part 2: Asset Management at UNSW

How UNSW applies the principles and fundamentals of strategic asset management to its physical assets

2.1 Organisation and Management

2.1.1 Governance

Council

The University is governed by a Council of 22 members that controls and manages all of the University's affairs and property. Council is made up of parliamentary and ex-officio members, members elected by staff, students and graduates of the University, and members appointed by the NSW Minister for Education or by Council itself.

Standing Committees

Council draws on the expertise of eight standing committees. These Committees have delegated authority to make certain decisions within their terms of reference and may also make recommendations to Council. The Vice-Chancellor may also bring urgent matters direct to Council.

There are four Standing Committees relevant to strategic asset management:

- Finance Committee;
- Buildings and Grounds Committee;
- Student Affairs Committee; and
- Risk Management Committee.

The terms of reference for the four Standing Committees are available at www.secretariat.unsw.edu.au.

Principal Officers

The chief executive officer of the University is the Vice-Chancellor and President and is responsible for promoting the interests and furthering the development of the University including strategic planning, budget, staffing and external relations.

The Vice-Chancellor is assisted in the management of the University by the Deputy Vice-Chancellors and Pro-Vice-Chancellor who are responsible for the provision of student services, research policy and management, education policy, educational and international enterprise, development, resources and infrastructure.

2.1.2 Academic Organisation

Academic Board

The Academic Board is the principal academic body of the University and is responsible for the academic policy setting, academic strategy, minor program revisions and academic standards. It advises the Vice-Chancellor and Council on matters related to teaching, scholarship and research.

Faculties and Schools

UNSW has ten faculties including the College of Fine Arts (COFA) in Paddington and UNSW@ADFA (Australian Defence Force Academy) in Canberra. Within the Faculties are more than 70 Schools through which the undergraduate and postgraduate programs are implemented.

Each Faculty has a Dean (with the exception of a Rector at UNSW@ADFA) who set Faculty strategic directions and who have the key leadership and management role in their Faculties.

Other Units

There are also other units that are affiliated with the University. They include centres, institutes, teaching hospitals and University-controlled entities. These support the aims and objectives of the University and allow for research, teaching and professional services in areas not readily covered by the Faculties and Schools.

2.1.3 Administration

Senior Management Group

The Senior Management Group assists the Vice-Chancellor in the management of the University. Its members are:

- Vice-Chancellor
- Deputy Vice-Chancellor (Research);
- Deputy Vice-Chancellor (Academic);
- Deputy Vice-Chancellor (International and Development);
- Deputy Vice-Chancellor (Resources);
- Pro-Vice-Chancellor (Education and Quality Improvement); and
- President, Academic Board.

Vice-Chancellor's Advisory Committee (VCAC)

The VCAC comprises the Vice-Chancellor, the Senior Management Group, all Faculty Deans (including the Rector, [UNSW@ADFA](#) and the Dean and Director of the Australian Graduate School of Management), the Dean of Graduate Research, the Chief Financial Officer, the Chief Information Officer, and the Director, Human Resources. The VCAC provides a forum for discussion and advice on the University's academic operations, research policy and management, strategic planning, policy direction, quality assurance and external relations.

Budget Advisory Group (BAG)

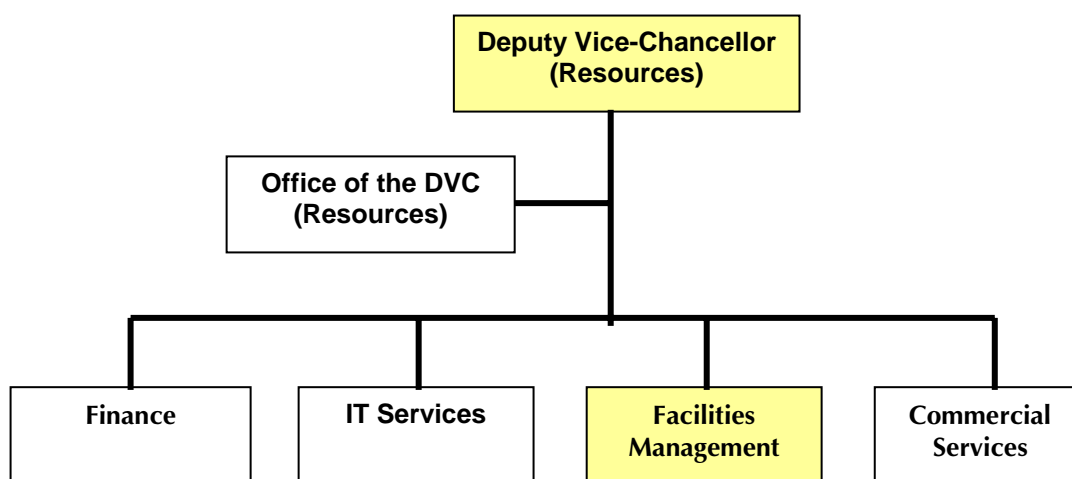
BAG comprises the Vice-Chancellor, the Deputy Vice-Chancellor's and the Chief Financial Officer. It provides information, recommendations and advice to the Vice-Chancellor on management of the University's financial resources.

Division of the Deputy Vice-Chancellor (Resources)

The Deputy Vice-Chancellor (Resources) is responsible for driving the strategic direction, planning and the overall performance of resources and infrastructure of the University. Management of the University's physical assets is administered and implemented through this Division by Finance, Facilities Management and Commercial Services. Management of information technology is managed through this Division by IT Services.

Weekly meetings are held between the Deputy Vice-Chancellor (Resources) and the heads of Finance, IT Services, Facilities Management and Commercial Services, where issues of mutual concern and interest, including strategic asset management, are addressed.

Figure 2: Organisation: Division of the Deputy Vice-Chancellor (Resources)



Finance

Finance shares with Facilities Management the management of the University's assets by way of financial reporting and accounting of all assets, to ensure that assets are capitalised in accordance with University policy <http://www.fsd.unsw.edu.au/am/acct/amlist2.html>. It also assists Facilities Management in undertaking risk assessment, economic and/or financial appraisal in project feasibility studies, and in identifying, acquiring, managing and disposing of property assets.

Finance is also responsible for leveraging financial returns from surplus or underutilised assets, in undertaking asset valuations and revaluations, preparing, implementing, maintaining and monitoring the UNSW budget and in providing training and general support to users of asset information.

Finance collaborates with Facilities Management during all stages of the asset life cycle process.

IT Services

IT Services is responsible for the provision and management of University-wide information and communication technology services. This includes the definition of IT architectures, the design and building of new applications and infrastructure, management and operation of IT and communication services, and the provision of end-user support. IT Services collaborates with Facilities Management during the planning and acquisition stages of the asset life cycle process.

Commercial Services

Commercial Services is responsible for the University's commercial activities. These include Campus Conferencing (venue hire and conference organisation), the UNSW Post Office, property management, Publishing and Printing Services and the University's recreation and lifestyle centre (UniGym).

Commercial Services collaborates with Facilities Management during the planning and acquisition stages of the asset life cycle process.

Facilities Management

Facilities Management supports the academic mission of UNSW by providing quality services and facilities that will enhance the quality of the campus environment and experience. Facilities Management shares with Finance the responsibility for strategic asset management and this is monitored and reviewed within Facilities Management by the Planning unit.

The organisational structure of Facilities Management is shown in Figure 3.

Service level agreements are in place for each unit which set out the service descriptions, key performance indicators, and the responsibilities of Facilities Management and its clients.

Strategic Asset Management Advisory Group (SAMAG)

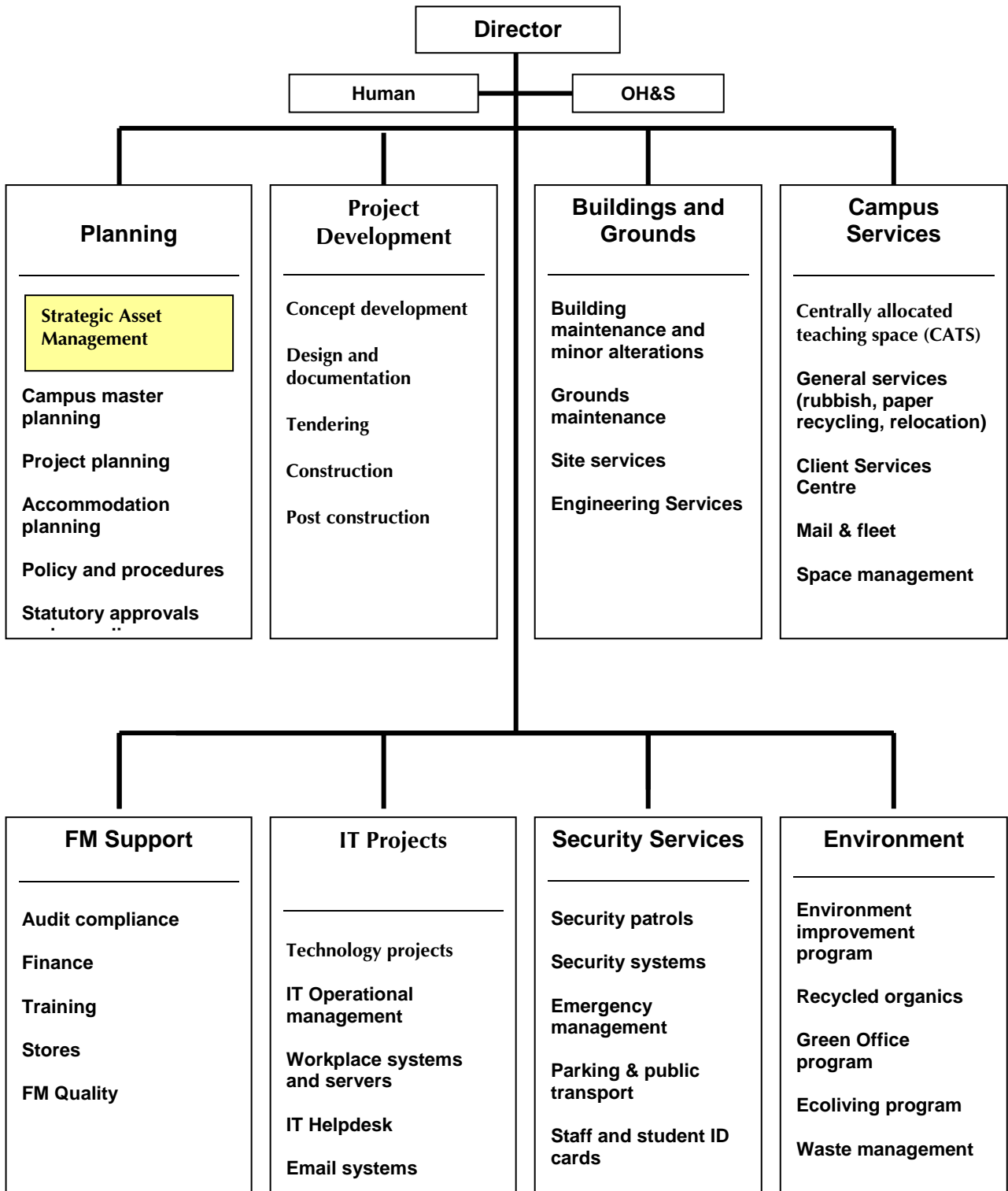
SAMAG meets monthly and advises the Vice-Chancellor on high-level, strategic management of the University's property assets. Its members are the Vice-Chancellor (or his nominee) and the Deputy Vice-Chancellors from the Senior Management Group. The Deputy Vice-Chancellor (Resources) chairs SAMAG.

The Director and Deputy Director of Facilities Management also attend in an advisory capacity. Other staff and consultants may be invited as required. Its terms of reference are to:

- Ensure that the management of assets supports the University's strategic plan, campus master plans, Faculty operational plans and Controlled Entity business plans;
- Advise and report on asset and accommodation matters referred to it by the Vice-Chancellor and the Strategic Asset Management Committee;
- Prioritise in the budget the investment in new assets, and the maintenance, operation and disposal of existing assets.

- Resolve the accommodation needs of Divisions, Faculties and Controlled Entities;
- Facilitate reporting and communication with Divisions, Faculties, Controlled Entities and other stakeholders on asset and accommodation matters.

Figure 3: Organisation – Facilities Management



Strategic Asset Management Committee (SAMC)

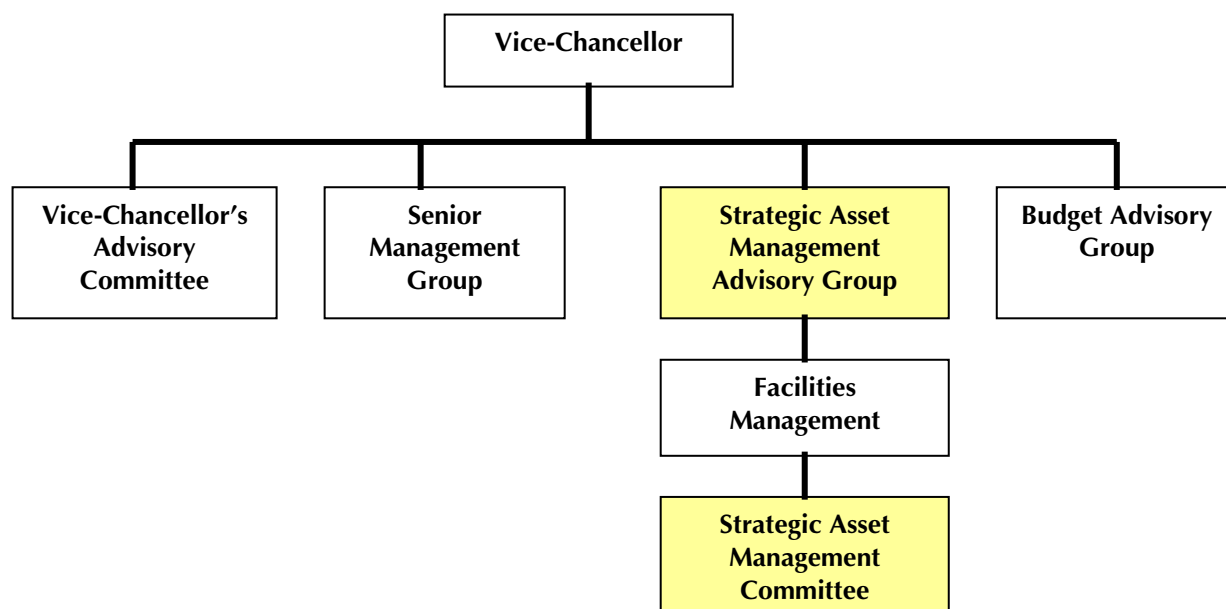
SAMC meets fortnightly and assists SAMAG in the management of the University's property assets. Its members are the Director and Deputy Director of Facilities Management together with the Managers of each organisational unit. The Deputy Director chairs SAMC.

Representatives from IT Services, Finance, the Risk Management Unit and additional staff and consultants may be invited as required.

Its terms of reference are to:

- Advise and report to SAMAG on asset and accommodation submissions from Divisions, Faculties and Controlled Entities and other stakeholders;
- Refer matters not reported to SAMAG to the Deputy Vice-Chancellor (Resources) for endorsement;
- Advise and report on asset and accommodation matters referred by SAMAG;
- Prepare and annually review the SAM Plan for submission to SAMAG;
- Prepare and annually review the submission to the TEFMA benchmark survey;
- Review resources, policies, procedures, programs, systems and databases to facilitate strategic asset management; and
- Facilitate reporting and communication with Divisions, Faculties, Controlled Entities and other stakeholders on asset and accommodation matters.

Figure 4: Organisation - SAMAG and SAMC



2.2 Key Strategic Documents

2.2.1 Strategic Plan

The *UNSW Strategic Plan 2005* sets out the University's vision, values, priorities and goals in four areas; research, international, learning and teaching, and community. It underpins Faculty and Division operational planning and is the basis for future strategic reviews that are a central element in the University's annual planning process.

The Strategic Plan is an element of the University's "Corporate Plan" - one of the strategic documents referred to in Part 1, Figure 1 of this document.

There are several priorities and goals outlined in the Plan that will impact on management of the University's assets. These are considered by Facilities Management during the planning and capital investment stages of the asset life cycle when evaluating Faculty and Division project submissions and before recommendations are made to SAMC, SAMAG and/or the relevant Standing Committee.

The *UNSW Strategic Plan 2005* can be viewed in full at www.unsw.edu.au/about/pad/strategicplan.html.

2.2.2 Campus Master Plans

The principles and implementation strategies contained in the campus master plans are considered by Facilities Management during the planning and capital investment stages of the asset life cycle when evaluating Faculty and Division project submissions and before recommendations are made to SAMC, SAMAG and/or the relevant Standing Committee.

Kensington

Since 1990, the University has adopted a number of master planning documents for its main campus at Kensington with the aim of creating a long-term vision that integrates the physical development of the campus with the University's academic, fiscal and asset strategies.

The *Kensington Campus 2020 Master Plan* has been endorsed by the UNSW Council and adopted by Randwick City Council in 2005. It demonstrates a vision for the campus for the next 15 years with a discussion of the site context and analysis, strategic vision, guiding principles, design principles and provisions, and implementation strategies. It also indicates opportunities for future capital investment to improve the "campus experience". The Master Plan will be reviewed at least every five years.

Reports prepared in conjunction with the Master Plan are a *Transport Strategy*, *Stormwater Strategy* and *Retail Strategy* for the campus.

The *Kensington Campus 2020 Master Plan* can be viewed in full at <http://www.facilities.unsw.edu.au/Planning/master.htm>

COFA (Paddington)

A Master Plan has been prepared for the COFA campus in Paddington in the form of a draft Development Control Plan (DCP). The DCP provides planning and design concepts for the site that optimise the needs of UNSW and its compatibility with its residential neighbours. It comprises key urban design and planning principles as well as appropriate solutions for maximum building envelopes, optimal pattern of buildings and open spaces, preferred distribution of uses, public domain interfaces, and an integrated transport strategy for the campus.

The COFA draft DCP can be viewed in full at <http://www.cityofsydney.nsw.gov.au/Development/UrbanRenewalProjects/Cofa.asp>.

UNSW Asia (Singapore)

Several design summary documents as the basis for master plans were prepared for the new UNSW Asia campus in Singapore as part of an international design competition.

Key features of the campus will be its tropical landscaping, using the existing site characteristics of the gully and plateau to inform the urban structure and stormwater drainage system, and five development zones namely; academic (the main body of the campus), research, performing arts and conference centres, sports facilities, and housing.

The campus will be developed in four stages over a 12 year period.

The winning architects are currently preparing the final Master Plan and are also designing the centrepiece of the campus, a library/general purpose building.

2.2.3 Service Delivery Strategy

The *Strategic Brief: Educational Overlay* for the *Kensington Campus 2020 Master Plan* represents the University's service delivery strategy. The Brief identified the elements that contribute to the success of UNSW and translated the vision, priorities and goals of the *UNSW Strategic Plan 2005* into the specific outcomes to be achieved. Most of these outcomes can also be applied to the University's other campuses.

Key elements of the service delivery strategy that will impact on the University's property assets are:

- Developing and reinforcing the global and regional significance of the Kensington campus;
- Encouraging stronger administrative and social links with the local community;
- Integrating the physical and visual boundaries of the campus with its surrounds;
- Extending the daily hours of core and non-core University activities;

- Creating a “sense of place” by a combination of factors that encourage people to visit and remain on campus;
- Creating “knowledge hubs” by co-locating teaching, learning, research, retail, event and green space and using wireless connections and signage;
- Co-locating Faculties and Schools within the knowledge hubs;
- Creating more flexible and informal shared space;
- Creating environments that encourage interactive collaborative and interdisciplinary teaching, learning and research;
- Providing a range of non-core activities such as retailing, social and sporting clubs;
- Ensuring that the design of buildings and landscape reflects the international student enrolment and focus of the University.
- Ensuring that new and refurbished buildings incorporate sustainability principles in design and construction.
- Providing clear definition and legibility across the campus;
- Using outdoor spaces to showcase and demonstrate UNSW innovations;
- Re-locating at-grade campus parking to perimeter basement/multi storey parking and reusing the vacated sites for open spaces and new buildings;
- Providing child care centres on and around the campus; and
- Increasing the amount and range of affordable housing on, or within walking distance of the campus.

The service delivery strategy is considered by Facilities Management during all stages of the asset life cycle when evaluating Faculty and Division project submissions, and before recommendations are made to SAMC, SAMAG and/or the relevant Standing Committee.

2.2.4 Budget

The University Budget is produced annually together with three year Forward Estimates and a five year Asset Management Forecast (AMF).

The budget cycle begins in June when Faculties and Divisions make submissions to Finance. After consideration by the Senior Management Group, the Finance Committee and Council, the Budget is adopted in November of each year.

The Budget is divided into three volumes:

- Volume 1 Executive Summary;
- Volume 2 the detailed document divided into four parts; and
- Volume 3 Asset Management Forecast (AMF).

The AMF is discussed in Part 3 of this document.

The Budget is considered by Facilities Management during all stages of the asset life cycle when evaluating Faculty and Division project submissions, and before recommendations are made to SAMC, SAMAG and/or the relevant Standing Committee.

The Budget is available at www.cfo.unsw.edu.au/unsw_budget.html.

2.2.5 Enrolment Plan

The University's *Enrolment Plan* is developed annually and provides projections of student load by program and teaching Faculty. The projections are based on average retention rates, new programs proposed and planned intakes provided by the Deans.

The *Enrolment Plan* is used as the basis for the University's annual discussions with the Department of Education, Science and Training (DEST) about enrolment profile and funding, and the allocation of resources internally to Faculties through the UNSW Budget. It is also used to determine targets for admission of students to each program.

The UNSW Institutional Analysis and Reporting Office publishes tables that show the planned and the actual intake for each Faculty <http://www.planning.unsw.edu.au>.

The *Enrolment Plan* is considered by Facilities Management during the planning and capital investment stages of the asset life cycle when evaluating Faculty and Division project submissions and before recommendations are made to SAMC, SAMAG and/or the relevant Standing Committee.

2.2.6 Environmental Management Plan

The *Environmental Management Plan* outlines a number of five year strategies through which principles of environmental sustainability will be implemented across UNSW in order to underpin all University activities. Applying international standards of environmental management, the Plan outlines environmental improvement initiatives to reduce the University's "ecological footprint".

The *Environmental Management Plan* is divided into nine functional areas. The implementation strategies within these functional areas are considered by Facilities Management during all stages of the asset life cycle when evaluating Faculty and Division project submissions, and before recommendations are made to SAMC, SAMAG and/or the relevant Standing Committee.

The *Environmental Management Plan* is available at www.unsw.edu.au/pad/emplan.html.

2.3 Planning and Review Process

The SAM Plan operates within the broader context of the University's planning and review process – a version of the generic process referred to in Part 1, Figure 1 of this document. This process provides an integrated and formalised cycle of planning and review of the University's strategic and operational activities across a calendar year. It aims to review and update strategic goals and priorities in the knowledge of operating circumstances, to fund these goals and priorities, and to assess the outcomes of its operational activities.

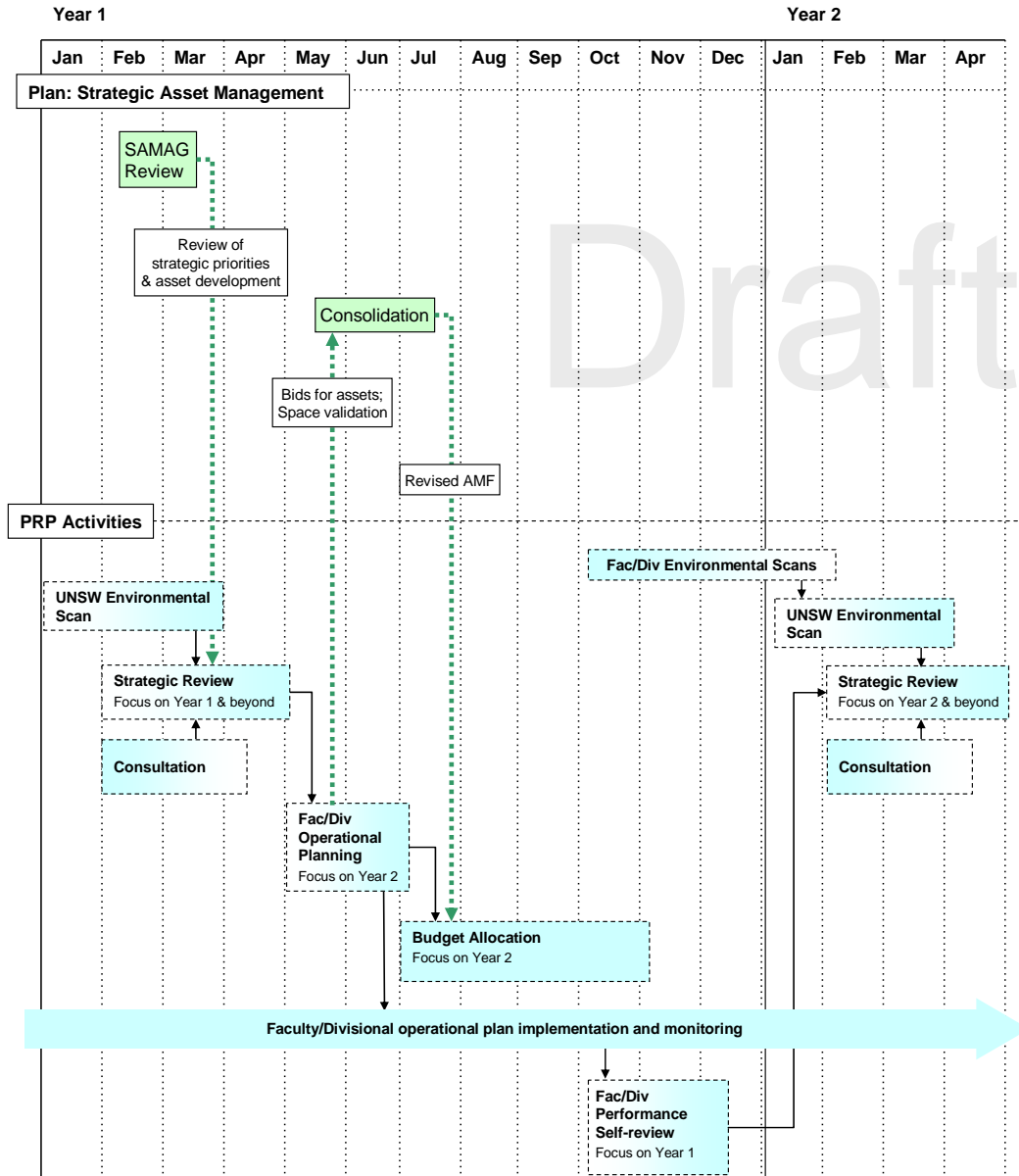
The University is re-positioning itself away from a conventional view of strategic planning that focuses on the periodic creation of a strategic plan, to a cycle where strategic and operational thinking is embedded in the day-to-day activities of the University.

The planning and review process involves an annual cycle of six key activities.

1. **Environmental Scan** – focuses on the 'big picture' rather than detail to ensure that the University regularly assesses internal and external conditions, opportunities and risks which influence its operations.
2. **Strategic Review** - a review of the University's progress in relation to its strategic goals, priorities and availability of resources. It is informed by an assessment of the University's internal and external operating environment (environmental scan), Faculty and Divisional performance self-reviews, a review of the use of funds, and the views of internal and external stakeholders. It takes account of and drives other planning processes such as strategic asset management.
3. **Operational Planning** - a review by Faculties and Divisions of current operational goals and the setting of goals for the next year. Accommodation needs are identified and form the basis of submissions for the next round of the AMF.
4. **Budget Allocations** - allocation of the University's funds for expenditure for the next year together with forward estimates and the AMF. The budget process is informed by Operational Planning. Budget Allocations involve the Senior Management Group, Budget Advisory Group, Finance Committee and the University Council.
5. **Operational Plan Implementation and Monitoring** - a continual activity through which Faculties and Divisions monitor progress in achieving their operational goals.
6. **Performance Self-Review** - Faculties and Divisions assess their current year's performance against their strategic and operational goals.

The University's planning and review process is undergoing further consultation with the Faculties and Divisions and will be finalised in 2007. A draft annual timetable is shown in the following figure.

Figure 5: Planning and Review Process: Draft Annual Timetable



2.4 Asset Strategy

2.4.1 Introduction

The University has a \$1.4 billion portfolio of property assets across NSW, plus one holding in Singapore. The portfolio consists primarily of properties owned freehold by UNSW with some leasehold.

The University's property assets are not currently managed as a single portfolio nor grouped to assist in their functionality. Various parts of the portfolio are managed separately as follows:

- An asset module in Finance;
- A property investment portfolio ("Pool P") in Treasury and Investment Services;
- A property database in Campus Services;
- Building and infrastructure schedules in the Buildings and Grounds unit;
- A building automation and control network (BACnet) operational system managed by contractors to the University.

Asset inclusions, descriptions and the quality of data vary between each of the above.

Facilities Management is currently integrating these separately managed groupings into one comprehensive database, located on a common web-based platform and managed as one source of asset information, accessible to all administrative units but which allows each unit to re-organise the data to suit specific needs.

The appointment of three new executive positions in 2005 namely, a new Chancellor, Vice-Chancellor and Chief Financial Officer provide a timely opportunity for UNSW to review its property portfolio and to prepare a comprehensive, broad-based asset strategy. Elements of a strategy currently exist but are not fully documented, approved at the executive level or properly understood by the University community.

Considerations appropriate to a UNSW asset strategy would include:

- Funding sources e.g. net earnings, loans, Government grants, benefaction;
- The cost and value of ownership versus leasing;
- The balance between capital investment and maintenance expenditure;
- Minimum standards of accommodation;
- Minimum levels of maintenance;
- Capitalisation policy; and
- Ownership and management of student housing.

An approved asset strategy will enable UNSW to establish the property portfolio that meets its accommodation and service needs as articulated through the Strategic Plan and the service delivery strategy. It will determine whether and how the University's property assets should be acquired, refurbished, maintained, reused or disposed of.

The review of the property portfolio should centre on the location, dependency, utilisation, capacity and functionality of the assets.

2.4.2 Campuses

UNSW has four campus sites in the Sydney metropolitan area, one in Canberra and one in Singapore.

Kensington

Kensington is the main campus of UNSW, located 6 kilometres from the Sydney central business district (CBD) within the local government area of Randwick.

Established in 1949, the campus has grown to an area of 38.9ha freehold with more than 140 buildings of various ages and condition, and a gross floor area (GFA) of more than 400,000m². It is divided physically by Anzac Parade into the main campus (east) and the western campus and building 223 Anzac Parade (west).

Kensington is home to each of the Faculties except COFA and UNSW@ADFA, has support facilities such as the library, parking stations, retail outlets and the Lifestyle Clinic, and student accommodation in the form of seven residential colleges and a group of apartments. Three of the colleges are independently managed on separate land titles under long-term leases from UNSW.

The western campus is home to the National Institute of Dramatic Art (NIDA) independently managed on a separate land title under a long-term lease, plus the UNSW Regiment also on a separate title under a long-term lease.

The western campus is a future development site and is currently also used for 'shunt' space, providing temporary teaching, research and administration space for staff and students awaiting relocation to permanent accommodation.

Building 223 Anzac Parade is on a separate land title west of Anzac Parade. It provides new accommodation for NewSouth Global, a wholly-owned subsidiary of UNSW, and the National Information Communications Technology Australia (NICTA) which provides a focus for research, intellectual property creation and the training of information communications technology researchers. NICTA leases space in the building from UNSW.

Strategy Considerations

Kensington is well located due to its proximity to the Sydney CBD, airport and eastern beaches, thereby enhancing the international goals and priorities of the UNSW Strategic Plan. Road and bus links provide good access but there is still potential to expand bus routes and to add new connections via light rail from the CBD. The campus is isolated from Sydney's heavy rail network and is likely to remain so in the foreseeable future.

The campus is also well located between the three local town centres of Randwick, Kingsford and Kensington, all within walking distance of the campus.

UNSW has given a commitment to the retention and long term improvement of the Kensington campus through its Campus 2020 Master Plan. The creation of knowledge hubs and clusters that maximise the co-location of academic disciplines to generate synergies and joint research, together with the provision of flexible learning spaces, retail and recreation activities, will reduce the dependency of building assets from providing only single service functions and improve their utilisation.

Much of the campus, with the lower and western campus areas in particular, is below development capacity given the potential of the Special Uses zoning of the site. The Campus 2020 Master Plan has identified significant new building sites and areas for increased maximum building heights that will increase the capacity of the campus and its building assets, over time.

The North Mall Development Zone project will increase the capacity and utilisation of the lower campus. The project aims to create a vibrant new precinct and is the largest capital works program undertaken in the history of the University. It involves the construction of two new buildings (Law Building and the Analytical Centre) and major refurbishment of three existing buildings

<http://www.dvcresources.unsw.edu.au/project/northMall.html>

The capacity of the campus can also be increased by the eventual inclusion and rezoning of residential properties purchased by the University for investment purposes, and the ex-residential properties occupied by UNSW, in the Kensington environs. The Campus 2020 Master Plan recommends that the area between the campus and the Prince of Wales Hospital be the subject of a concept plan that examines preferred future uses, urban form, public domain and transport connections.

The adjacent Randwick Racecourse is leased from the NSW Government by the Australian Jockey Club (AJC). It is a significant under-utilised asset. There are therefore opportunities for UNSW to build a relationship with the AJC to determine whether shared facilities such as parking, housing and recreation could be developed.

The functionality of the campus, its buildings and infrastructure can also be improved. The Campus 2020 Master Plan recommends ways to improve campus legibility and a campus-wide integrated approach to the provision of infrastructure and services.

A building condition and compliance audit has been commissioned that will detail the extent of refurbishment and the level of maintenance required across the campus. UNSW has a significant deferred maintenance liability, particularly at Kensington where several buildings are more than 40 years old. A commitment has been made to the demolition of the timber huts on the lower campus to reduce this liability.

There is therefore a demonstrated need to make available more funds for building maintenance and in-ground service infrastructure to address the University's maintenance liability.

Reduction in asset dependency and improved space utilisation is being achieved by Campus Conferencing which markets seminar rooms and lecture theatres across the campus to external organisations during normal University hours, after-hours and at weekends. Better space utilisation is also achieved by the use of Centrally Allocated Teaching Space (CATS) rooms in most buildings which are managed by Facilities Management rather than the Faculties and Schools. In addition, part of building 223

Anzac Parade is being leased to NICTA to improve its utilisation until NewSouth Global is ready to occupy the whole building.

There are also non-asset solutions being employed on the Kensington campus that reduce asset dependency and improve the utilisation and functionality of its buildings. Examples are highlighted as follows:

Timetabling – Syllabus Plus, a web-based program for timetabling teaching space, also integrated with the CARDAX security access control system to allow the automation of theatre and teaching room systems such as air conditioning and lighting.

Room Hiring - rooms are hired on the Randwick Racecourse for exam space because of its intermittent nature and specialised requirements, rather than occupy teaching space or having this space “purpose-built” at a significant cost.

Demand Management – the University’s Transport and Parking Strategies, as detailed in the Campus 2020 Master Plan aim to reduce the demand for on-campus parking and the construction of costly parking stations. Also, a range of programs and projects linked to the Environmental Management Plan aim to reduce energy and water consumption.

Buildings and Grounds Charge – a charge payable per m² annually by a Faculty or Division, based on the amount of useable floor space they occupy and the cost to the University of power and gas, repairs and maintenance, deferred maintenance, rates, Facilities Management and industrial special risk insurance.

Outsourcing - the University’s largest contract for maintenance has been outsourced for the past seven years and is currently being re-evaluated for limited tender.

Given its excellent location and the commitments made through the Campus 2020 Master Plan and associated reports, UNSW will continue to own and occupy the Kensington campus as a leading international teaching and research institution but with improved capacity, utilisation and functionality.

College of Fine Arts (Paddington)

The COFA campus is located at Paddington within the local government area of Sydney. It occupies a site area of 8.5ha with eight buildings of various ages and condition, and a GFA of more than 16,500m², including student exhibition spaces. The site is within the Paddington Conservation Area and two of its buildings are listed as heritage items.

COFA offers programs in the visual arts, design, digital media, art education, art history and theory.

Strategy Considerations

UNSW has given a commitment through the current draft Development Control Plan (DCP) for the campus at Paddington to continue as the home of COFA.

Its location in close proximity to the Sydney CBD and relationship with the business, retail and cultural activity of Oxford St will be maximised as will the opportunity to promote non-vehicular travel by staff and students.

The capacity of the site will be increased by the demolition of several buildings, the refurbishment of others with additional floor space, and the construction of new Faculty buildings, an art gallery and underground car park.

The functionality of the campus will be improved by its reorientation towards Oxford St and Greens Rd with active, public and high volume uses, and the creation of a central open space for outdoor activities and on-site circulation.

Long-term redevelopment of the campus will optimise the needs of the Faculty, provide the “best fit” with its residential neighbours and ensure that COFA remains a leading fine arts institution within the inner Sydney area.

Randwick

The Randwick campus is located 1 kilometre north of Kensington within the local government area of Randwick. It has a site area of 2.3ha with 18 buildings and a GFA of more than 16,000m².

The campus houses the Institute of Languages, several Research Centres and the UNSW Press warehouse.

Strategy Considerations

A review of the campus is required that canvasses options for its future use.

The campus is not achieving its full development potential given its zoning of “Special Uses” and building R9 is under utilised and subject to BCA liabilities. Several buildings are more than 40 years old.

Given the close proximity of Randwick to the main Kensington campus and the under capacity that exists on its lower and western campus areas, it may be feasible to relocate activities from Randwick to the main campus and dispose of the site. This would assist in achieving the outcomes of the University’s service delivery strategy.

Depending on the future of the adjacent Sydney Institute (Randwick TAFE), a higher return on investment may eventuate if the two properties were sold as one parcel.

Further studies are required to determine the highest and best use of the site.

Cliffbrook (Coogee)

The Cliffbrook campus is located 2.5km east of Kensington at Coogee within the local government area of Randwick. It has a site area of 1.2ha with four buildings and a GFA of more than 2,500m². Building CC1 is listed as a heritage item.

The campus is home to UNSW Press, the Australian Taxation Studies Program (ATAX) and units of the Faculty of Medicine. In 2006, ATAX will be relocated to the new Law building on the Kensington Campus.

Strategy Considerations

A review of the campus is required that canvasses options for its future use.

The campus was purchased for the specific purpose of accommodating the Asia Australia Institute which has ceased operating. As with Randwick, the campus is not achieving its full development potential given its zoning of "Special Uses". The situation will be exacerbated when ATAX vacates building CC4 and relocates to the new Law building at Kensington.

Given the close proximity of Cliffbrook to the main Kensington campus, it may be feasible to relocate its activities to the main campus and dispose of the site. This would assist in achieving the outcomes of the University's service delivery strategy. Alternatively, its coastal location offers opportunities to replace the AGSM Conference Centre that was previously at Little Bay.

Further studies are required to determine the highest and best use of the site, including the adjoining residential property at 10 Battery St, Coogee.

UNSW@ADFA (Canberra)

Within the Australian Defence Force Academy (ADFA) campus at Canberra, UNSW has established a college known as [UNSW@ADFA](#) under an agreement with the Commonwealth Government. The college is the centre for higher education for the Australian Defence Force and offers undergraduate courses to officer cadets and graduate study and research leading to higher degrees for military and civilian personnel.

The campus has a full range of academic services, sporting and training facilities, housed in modern buildings.

Strategy Considerations

[UNSW@ADFA](#) will continue to operate on the ADFA campus in Canberra through its agreement with the Commonwealth Government. UNSW is not responsible for the planning, capital investment, maintenance, operation or disposal of assets on the campus.

UNSW Asia

UNSW Asia is a proposed new campus with a 60-year lease of a 17ha "greenfields" site located in Changi, Singapore. UNSW is currently negotiating for purchase of an adjoining 2ha for student housing, plus additional land to bring the total site to 20ha.

UNSW Asia will be Singapore's first foreign university and the first wholly owned research and teaching institution to be established overseas by an Australian university. Significant investment in infrastructure will include extensive research laboratories, a library, student amenities and accommodation.

The campus will be developed in four stages over a 12-year period with stage 1 to be completed by the end of 2008. Stage 1 will have an area of 20,000m² within three buildings - a library, a multi-purpose Central Academic Centre, and teaching and laboratory spaces for science and engineering.

Strategy Considerations

UNSW has committed to the development of a new campus in Singapore with the preparation of a draft heads of agreement to form the basis of a 60 year lease, approval and implementation of a Master Plan and the appointment of its first President.

Its location in Singapore is part of a strategic move by UNSW to develop strong links with existing and emerging research clusters in the Asian region in the disciplines of commerce, engineering, science, design, media and international studies.

Through the holding of international design competitions, UNSW will ensure that development of the campus and its building assets achieve the highest standards in sustainable design and construction.

2.4.3 Non-Campus, Kensington Environs

The University continues to purchase residential properties in the Kensington environs as strategic acquisitions for possible later inclusion in the campus. Those not immediately required for University purposes are leased to the residential market at prevailing rates. There are currently more than 20 such properties.

The others are used for a variety of UNSW purposes including child-care, the Risk Management Unit, Faculty of Medicine and Facilities Management.

Strategy Considerations

As mentioned above, the development capacity of the Kensington campus can be increased by the inclusion and rezoning of properties owned by the University adjacent to the campus.

The University's property assets in the area bounded by High, Wansey, Arthur and Botany Streets require a long-term development strategy. Their current uses are a mixture of academic, residential and other. The land holdings are not necessarily contiguous and therefore development options are restricted.

In addition, the area between the campus and the Prince of Wales Hospital should be the subject of a concept plan as recommended in the Campus 2020 Master Plan, that examines preferred future uses, urban form, public domain and transport connections.

2.4.4 Non-Campus, Sydney Elsewhere

Miscellaneous other properties are located across the Sydney metropolitan area which are used for teaching, research and other UNSW purposes.

Australian Graduate School of Management (AGSM), Sydney

The AGSM leases office space at O'Connell St in the Sydney CBD for some of its teaching programs. Facilities include two tiered theatres and four flat-floor teaching rooms.

Australian Technology Park Innovations Pty Ltd (ATPi), Everleigh
ATPi is located at Eveleigh, South Sydney, close to Sydney's CBD. ATPi is home to a community of researchers, entrepreneurs, start-up businesses, technology companies and education organisations that are linked to UNSW and other universities. UNSW, together with other universities, lease one building on the site. The land is owned by the State Government and managed by the Sydney Harbour Foreshore Authority.

Strategic Considerations

There are no issues to be considered at the present time.

Animal Holding Facilities, Garrawarra

A site adjacent to the Garrawarra Centre for Aged Care within the City of Wollongong was to be leased from the South Eastern Sydney Area Health Service for new facilities for the Biological Resources Centre (BRC). The BRC provides animals and services that support the animal based research and teaching of UNSW and its affiliated teaching hospitals. It was intended that the site would partially replace the facilities at Little Bay and the adjoining decommissioned Prince Henry Hospital site.

There is still a need for animal holding facilities for the BRC but other options are being investigated.

Strategic Considerations

Securing a lease and development of the site are currently on hold pending further consideration of BRC requirements.

Centre of Excellence in Advanced Silicon Photovoltaics and Photonics, Botany

The Centre occupies office and warehouse space at 80-88 Bay Street at Botany, 4km south west of the Kensington campus. The premises are used for the design and development of solar energy technology, operating as CSG Solar Pty Limited.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

David Phillips Sports Fields, Daceyville

The sports fields are located at Daceyville 1.5km south of the Kensington campus within the local government area of Botany. They are the University's major sports facility and compliment the facilities on the Kensington campus at Village Green.

The site has an area of 6.3ha and consists of three playing fields for cricket, rugby, touch football and soccer. Buildings and infrastructure include amenity buildings, clubhouse, grandstand, caretaker's cottage, grounds depot, pump rooms, scoreboard, ticket office and floodlights.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Educational Testing Centre, Rosebery

The Educational Testing Centre is located at Rosebery, west of the Kensington campus, within office buildings on five parcels of land leased from a private company. It is part of Educational Assessment Australia, a business unit of NewSouth Global.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Kingsford Legal Centre

The Kingsford Legal Centre is located south of the Kensington campus within a converted residential building leased from Randwick City Council. The Centre, within the Faculty of Law functions as a community legal centre providing free advice and ongoing assistance to local residents, and as a practical legal education program to UNSW law students.

Strategic Considerations

The Centre will relocate to the new Law building on the Kensington campus in 2008 and the current lease at Kingsford with Randwick City Council will be terminated.

Little Bay

The Little Bay site is located on 17ha of land, 8 kilometres south of the Kensington campus within the local government area of Randwick. The site is used for animal breeding facilities; the National Solar Architecture Research Unit (SOLARCH) that provides consultancy, evaluation and information services to government and

industry; sports fields, amenities buildings and a caretaker's cottage; and leases to Energy Australia for the provision of electricity sub-stations.

Strategic Considerations

Following a request from UNSW, the NSW Minister for Education has approved the sale of the site at Little Bay. The site was originally purchased because of its location adjacent to the Prince Henry Hospital that has now closed. The site was well below its development capacity and its buildings were underutilised, had major liability issues and suffered from vandalism.

A study will be required to determine if replacement sports fields are needed, possibly at David Phillips Field.

Residential Premises, Coogee

The University is the owner of residential premises at 10 Battery St, Coogee adjacent to the Cliffbrook campus and this should be reviewed in conjunction with the review of Cliffbrook.

Rowing Facilities, Gladesville

Rowing facilities will be provided for UNSW and Sydney Girls High School on land at Tarban Creek, Gladesville within the local government area of Hunters Hill. The existing site area is 4,853m². UNSW is a trustee of the land and also holds a lease from the Maritime Services Board granting use of a boat launching pontoon. Adjoining surplus RTA land will be added to the site and will remain with the Crown.

Proposed facilities include a rowing boatshed, change rooms, toilets, garage, car park and roadway.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Student Housing

The University's Mulwarree Apartments are located on a freehold site of 898m² opposite the Randwick campus. They were the University's first off-campus housing project. There are 37 self-contained, furnished apartments, each with five single bedrooms with a shared kitchen, dining/living area and bathroom. Student and visitor parking are provided. The third stage will be completed in 2007 and will provide an additional 85 beds.

NewSouth Global has entered into a 15-year lease with a private company, Unilodge to manage a new 225 bed facility in Anzac Parade, Kensington, 1 km north of the western campus. Each apartment is self-contained and fully furnished. Shared facilities include a student lounge room, common study area and laundry.

NewSouth Global also has a number of head leases in the Coogee area for Study Abroad students who study at UNSW for up to one full year at undergraduate or postgraduate level.

Strategic Considerations

The future of these properties should be considered as part of a broader University student housing strategy.

Water Research Laboratory, Manly Vale

The Water Research Laboratory is located on 3.8ha in three land titles at Manly Vale in Sydney's northern suburbs. The Laboratory is part of the School of Civil Engineering and is a leading international research and consulting laboratory in the areas of water, ground water, coastal and environmental engineering.

Facilities include an administration building, hydraulic laboratory buildings, the Integrated Mapping Technology building, workshop, sheds, a cool room and other sundry buildings and infrastructure.

Strategic Considerations

The University has agreed to retain the water research laboratory at Manly Vale for the time being.

2.4.5 Field Stations

UNSW has one field station located on the outskirts of metropolitan Sydney, five in rural NSW and one on the Great Barrier Reef in Queensland. The stations are used for teaching, research and other University purposes. Three of these field stations at Cowan, Smiths Lake and Fowlers Gap play an integral role in the teaching and research activities of the School of Biological Earth and Environmental Sciences (BEES).

Cowan

Located in the Muogamarra Reserve, near Cowan on the northern outskirts of Sydney, the station consists of three land titles totalling nearly 6ha in area. It operates under a licence agreement with the NSW Minister for the Environment. The station incorporates a laboratory/service facility and holding facilities for zoological and biological research.

The facilities are also used by BEES for undergraduate and postgraduate teaching and by visiting researchers and members of other institutions.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Fowlers Gap

Located 110km north of Broken Hill on a site of 38,888ha, the station is leased by UNSW for the study of the arid zone environment and its flora and fauna. It is used

extensively for teaching, research and student field excursions by UNSW schools and units. State, national and international institutions and agencies have also conducted and collaborated in research and teaching activities.

Buildings on the site comprise a dormitory, accommodation for catered groups, a self-contained flat, three cottages, an artist's retreat, an office/laboratory and a mechanical workshop.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Hay

Located in western NSW on a site of 1,861.5ha, it consists of five land titles owned by the University and one experimental farm on Crown land. The station is used by the BRC for the production and supply of sheep to researchers at UNSW and elsewhere.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Smiths Lake

The station is located within the Myall Lakes National Park, north of Newcastle. A site of 1.5ha on the southern shore of the lake is leased from the National Parks and Wildlife Service. An island nature reserve of 24.8ha within the lake is a Crown Reserve under UNSW trusteeship for the study and preservation of native flora and fauna.

The field station is used for undergraduate and postgraduate teaching and for research purposes. Other institutions also use the station including local community groups, primary and high schools and other universities.

There are nine buildings on the site consisting of two dormitories, ablutions block, laboratory/kitchen, lecture room/storerooms, storeroom/dormitory, cookhouse, communal building and a boatshed.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Stuart Town

The station is located 2km south of Stuart Town within the Shire of Broken Hill on a site of 455.6ha and leased from the Crown for sheep and cattle agistment. There are cattle yards and a shed on the site.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Wellington

The station is located on a site of 392.6ha at Nanima near Wellington, leased from the Crown for sheep and cattle agistment. Buildings on the site comprise a residential cottage, shearers' accommodation units, cool room, workshop, and various sheds.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

Lady Elliot Island

The island is located 80km north east of Bundaberg (Queensland) on the Great Barrier Reef. The Faculty of Science and the Study Abroad program use the field station on the island.

Strategic Considerations

A review of the property portfolio should investigate the opportunities and constraints of this site.

2.4.6 Teaching and Research Hospitals

Teaching and research hospitals are part of the Faculty of Medicine and provide for the teaching of undergraduates and postgraduate research programs. Use of the medical facilities by staff and students of UNSW is by agreement between the University and the relevant State Government authorities. The facilities are:

Prince of Wales Clinical School - located within the Prince of Wales Hospital, a principal teaching hospital for UNSW located close to the Kensington campus.

School of Women's & Children's Health - located at the Royal Hospital for Women, the University's principal teaching hospital in obstetrics and gynaecology and the Sydney Children's Hospital (paediatrics), both at Randwick.

South Western Sydney Clinical School – located at Liverpool Hospital, a principal hospital for the South Western Sydney Area Health Service, with teaching and research programs also located at Bankstown-Lidcombe, Campbelltown and Fairfield Hospitals.

St Vincent's Clinical School - located at St Vincent's Hospital in Darlinghurst, east of the Sydney CBD and a principal teaching hospital for UNSW.

St George Clinical School - located at the St George Hospital, Kogarah. It is a principal UNSW teaching hospital and has an active research program.

The School of Rural Health - provides high quality medical education and research to improve medical care to people in rural and remote NSW with teaching and research facilities at public and private hospitals at Albury-Wodonga, Coffs Harbour, Port Macquarie and Wagga Wagga.

Strategic Considerations

There are no issues to be considered at the present time.

2.4.7 Affiliated Medical Institutes

There are six Institutes affiliated with UNSW through the Faculty of Medicine. As with the Teaching and Research Hospitals, use of the facilities by staff and students of UNSW is by agreement between the University and the relevant State Government authorities. The Institutes are:

Black Dog Institute – a clinical, research and educational body for improving the understanding, diagnosis and treatment depression and bipolar disorder. It is located within the Prince of Wales Hospital, Randwick.

Children’s Cancer Institute Australia for Medical Research (CCIA) – an independent medical research institute dedicated to research into the causes, cure and prevention of childhood cancer. CCIA is located within the Sydney Children’s Hospital and the Prince of Wales Hospital at Randwick, and at two premises in the environs of the Kensington campus.

Garvan Institute of Medical Research – a leader in gene based medical research and committed to delivering new ways to prevent and treat major diseases. It is located within St Vincent’s Hospital, Darlinghurst.

Prince of Wales Medical Research Institute – one of the largest centres of research on the brain and nervous system in Australia and located within the Prince of Wales Hospital, Randwick.

Skin and Cancer Foundation Australia – a private not-for-profit organisation which provides specialised dermatology services, specialised dermatopathology reporting and teaching activities. The Foundation is located at Darlinghurst and Westmead.

Victor Chang Cardiac Research Institute – an independent research facility committed to excellence in research into heart disease and cardiovascular biology, cardiovascular research training, and facilitating the application of research discoveries to patient care. The institute is located within St Vincent’s Hospital, Darlinghurst.

Strategic Considerations

There are no issues to be considered at the present time.

2.5 Policies, Procedures & Other Documents

Policies, procedures and other documents relevant to SAM are detailed in the Resource and Information Manuals compiled by Facilities Management. The main ones are highlighted below.

SAMAG and SAMC – their terms of reference, membership, and procedures for agendas and minutes of meetings.

Space Management Policy & Procedures – identifies more efficient and effective use of space to avoid unnecessary capital expenditure on the University's building assets. <http://www.infonet.unsw.edu.au/poldoc/space.htm>

Accommodation Strategies – summary statements of Faculty and Division accommodation objectives, existing space allocation and needs, and projects proposed through the AMF.

Environment Policy – the framework for setting up a process that integrates environmental responsibility in all University activities.
www.unsw.edu.au/pad/emplan.html

Service Level Agreements – summary statements for each unit of Facilities Management of its service descriptions, key performance indicators, and the responsibilities of Facilities Management and its clients.
<http://www.facilities.unsw.edu.au/sls.htm>

Property Portfolio – a summary schedule of the University's property assets by location, property description, ownership, buildings and infrastructure, use and asset replacement value.

Project Process and Documentation – a manual that details the six-staged process for the planning and delivery of UNSW capital projects, process flow charts, project categories, checklists and document pro formas.

There are also University-wide policies and guidelines that are relevant to SAM. These include the *Risk Management Policy*
http://www.secretariat.unsw.edu.au/council/policy/047_Risk_Management_Policy.pdf
and the *Policies and Guidelines Accounting Manual*
<http://www.fsd.unsw.edu.au/am/acct/amlist2.html>

2.6 Assessment and Decision-Making Tools

UNSW, through Facilities Management uses a number of assessment and decision-making tools to evaluate and prioritise Faculty and Division project submissions at appropriate stages of the asset life cycle and before recommendations are made to SAMC, SAMAG and/or the relevant Standing Committee.

During the feasibility stage of projects, financial appraisal and risk assessment are carried out. The estimated cost of a project is assessed against the University's available funds within the Budget and the AMF. The project may be re-staged, re-prioritised or reduced in scope to ensure adequate funds are available in view of other competing submissions for limited funds. Risks in terms of occupational health and safety issues such as hazardous and dangerous goods are also assessed.

For major projects a more detailed financial appraisal and risk assessment is carried out at the feasibility stage as part of a comprehensive Project Plan, before being approved by the Finance or Buildings and Grounds Committees of Council.

For the major North Mall Development Zone project, the consultant project managers developed an initial project risk framework to identify and evaluate the critical risks based on the collected experience of the consultant and University project managers. Strategies were put in place to continuously identify and manage each risk over the life of the project.

For the UNSW Asia project, an economic analysis that included alternative options, a business plan and risk management assessment was carried out before being approved by the Finance Committee and Council.

During the design and concept stage of projects, the initial financial appraisal and risk assessment maybe reviewed and the project reconsidered by SAMC, SAMAG and/or the relevant Standing Committee.

Value management is often carried out at all stages of major projects and this has been the case with the NMDZ project. Through value management exercises during the feasibility, concept development, design and construction stages, cost savings have been identified without compromising the achievement of project objectives.

The UNSW Environment Management Plan 2005-2010 provides a framework for sustainability assessment. Assessment is carried out within the asset-related areas of energy management, water management, materials management, planning, design and development, and transport.

As an example of sustainability implementation, UNSW has endorsed the Green Building Council of Australia "Green Star" rating scheme. The new Law building has been self-assessed as equivalent to four green stars and the refurbishment of the Heffron Building has been self-assessed as equivalent to five green stars. An application for a formal rating of the Heffron Building has been submitted to the Green Building Council of Australia. UNSW aims to ensure that all future new buildings and major refurbishments achieve a five star rating.

In addition, life cycle costing is carried out for major UNSW projects at the feasibility, concept development, and often reviewed at the design and documentation stages. This tool is often applied to smaller components within a large building project such

as lighting for the new Law building. Life cycle costing was also carried out for the central energy plant in the basement of the new Law building.

Furthermore, aquifer recharge and increased bore water use is being implemented in all capital works projects on the Kensington campus.

A post occupancy review of newly completed buildings is an assessment tool not yet fully utilised by UNSW. However, recent projects will be evaluated as to how the project outcomes can feed into the concept development stages of future building proposals. For example, the Law library in the new Law Building will guide the major refurbishment proposed for the main UNSW Library (see 3.3.5 below).

Benchmarking is often used during the planning stage of the asset life cycle in the feasibility and concept design stages of major projects to demonstrate that proposed capital expenditure is not above or below the range that would be expected in a project of comparable size. In the benchmarking exercise undertaken for the NMDZ, cost information from other University projects around Australia and overseas was sought and it was demonstrated that although the scope of costs varied considerably between projects, the new Law building was within the benchmark range.

UNSW also participates in the annual Tertiary Education Facilities Management Association (TEFMA) benchmark survey with more than 60 Australian and New Zealand tertiary institutions. (<http://www.tefma.com/>) An annual survey report is produced that shows results in the following categories:

- Preventative and corrective maintenance expenditure;
- Refurbishments;
- Backlog liabilities;
- Cleaning and waste management services;
- Energy consumption and expenditure;
- Grounds maintenance;
- Security;
- Parking;
- Water consumption and other related expenditure;
- Building operating costs.

Because the survey is one of self-assessment by the participants some bias in the results can be expected. Also, variations from the mean in each category may have a valid basis. For example, the provision of car parking for students and staff at UNSW are significantly lower than the mean because UNSW has implemented travel demand management to encourage the use of public transport. For these reasons, Facilities Management has yet to embrace a methodology to evaluate the results of the benchmark survey.

In the disposal stage of the asset life cycle as is the case with the current sale of the Little Bay site, UNSW engages appropriate consultants to undertake an economic assessment to determine the best options for disposal and to maximise the return to UNSW.

Part 3: Asset Management Forecast

How strategic asset management will be implemented over the next five years.

3.1 Introduction

The Asset Management Forecast (AMF) 2006 - 2010 indicates proposed expenditure on the University's physical assets over the next five years. It reflects a more strategic approach to the planning, implementation, management and disposal of University assets than in previous years.

UNSW is committed to spending an appropriate level of capital funds to align its space needs, buildings and infrastructure with strategies to support the quality of teaching and research.

The AMF is reported to the University Council as part of the annual UNSW Budget and Forward Estimates. Finance Committee approval is required for individual projects in excess of \$5m, with other projects under delegation.

The Senior Management Group and Finance Committee regularly review the AMF. Advice on proposed projects is also sought from the Buildings and Grounds Committee, SAMAG and where appropriate, the Budget Advisory Group.

Proposed expenditure is summarised within five categories. The categories match the life cycle of assets, namely Planning, Capital Investment, Maintenance and Operations, Demolitions and Disposals.

Planning, Capital Investment, Demolitions and Disposals are generally funded from central or faculty/division discretionary funds. Maintenance and Operations are funded from the general fund via the Buildings and Grounds charge.

For 2006 – 2010 some \$158m expenditure is already committed on the basis of existing contractual arrangements, most notably within the North Mall Development Zone of the Kensington campus. In addition, some \$45m expenditure will be sourced from Faculty/Division discretionary funds on the basis of current practice.

Not included in the AMF is expenditure on projects which may come from sources other than UNSW funds. These include additional student accommodation on the Kensington campus and UNSW Asia.

The following discussion highlights the major expenditure proposals over the next five years within the AMF.

3.2 Planning

3.2.1 Objectives

The University's objectives in preparing campus Master Plans are to:

- Create a long-term vision for the future that integrates the physical development of the campus with the University's academic, fiscal and asset strategies;
- Guide the siting of short-term capital project priorities to meet the immediate needs of the University;
- Facilitate project implementation by providing a framework and mechanism for decision making by the University and statutory authorities;
- Inform the campus community and the local community of the University's broad intentions for its campuses;
- Establish a sense of place and reinforce the campus experience for students and staff;
- Encourage inter Faculty and inter School collaboration in teaching and research;
- Promote sustainable campuses socially, economically and environmentally; and
- Maintain flexibility in design to accommodate future growth and change.

The University's objectives in undertaking project planning via feasibility and concept development studies are to ensure that a proposed project:

- Accords with the University's academic, fiscal and asset strategies;
- Meets the service delivery objectives of the client;
- Takes into consideration existing relevant guidelines and policies;
- Accords with the objectives and principles of any campus master plan; and
- Is subject to appropriate risk assessment and economic or financial analysis before commitment to capital investment is made.

3.2.2 Master Planning

Kensington Campus 2020

Complementing the approved Master Plan will be implementation of urban design plans for specific areas of the campus. These will incorporate more detailed urban design principles, guide the University in setting briefs for capital investment projects and facilitate development approvals from Randwick City Council. These urban design plans will be “rolled out” from 2006 as development pressures emerge on the campus.

The Master Plan will be reviewed in 2010.

UNSW Asia

Rezoning of the site has been obtained from the Singapore authorities and negotiations are taking place to facilitate staged development of the site and to obtain relevant floor space ratios. A competition will take place for architectural services to provide design and documentation for Stage 1 buildings to enable operation of the new campus from early 2009.

3.2.3 Project Planning

Kensington Campus - High St Housing

UNSW has appointed a major accounting firm and a project management firm to investigate and deliver new University housing at Kensington through a possible Public Private Partnership (PPP). An integrated development is sought with a long-term management outcome that enhances the campus experience at minimum risk and cost to the University. Therefore, other uses that may be included are campus parking, childcare, retailing and public buildings.

UNSW has determined that provision of housing on its main campus is a priority. There is an immediate identified need for around 1000 beds. An increase in campus housing will support sustainability principles, enable a strong sense of community, increase the affordability of housing in the high cost Sydney housing market, and enhance the campus experience for students.

Through the Campus 2020 Master Plan, an area has been identified for redevelopment of approximately 5ha between Gates 2 and 7 fronting High Street on the lower campus.

On finalisation of the project definition, expressions of interest and contract phases, construction on the site is expected to commence in around 2007 and may continue for five years. In the meantime, staged demolition of existing buildings will take place as they become vacant with the relocation of occupants to other parts of the campus.

Building Condition Audit

UNSW has appointed consultants to carry out a condition audit of the University's buildings and infrastructure. A pilot study will first be carried out on the Kensington campus. Following an evaluation of the study, a full audit will be carried out of the remaining campus buildings plus buildings at Paddington, Randwick and Coogee, as well as the in-ground infrastructure.

The audit will exclude above ground non-building infrastructure, IT infrastructure, non-fixed equipment within rooms, furniture, backlog maintenance works under \$1,000 and those buildings that are either newly built/refurbished or are to be demolished.

The audit will be completed in 2006 and will guide future project inclusions in the Capital Investment Plan and Maintenance Plan of the AMF.

Coogee Campus – Feasibility of Sale

In 2008 on completion of the new Law building on the Kensington campus, ATAX will relocate from Coogee to the new building. Before this occurs, a feasibility study will canvass options for the future of the Coogee campus. The options include:

- Disposal of the site to divest the University of building and infrastructure liabilities and to generate funds for other capital works;
- Retain the heritage building CC1 via a strata subdivision and dispose of the remaining site and buildings; or
- Retain the whole site for new uses such as a residential training and conference centre.

The feasibility study will be carried out in 2006.

Randwick Campus – Feasibility of Sale of Building R9

Building R9 is a large office and warehouse building of approximately 8,000m², currently underutilised with a mixture of uses including storage. It has heritage significance.

A feasibility study in 2006 will canvass options for its future use. The options include:

- Subdividing the building from the rest of the site and selling the property;
- Developing the building as student accommodation or residential units; or
- Leasing the building to commercial/other educational users.

3.3 Capital Investment Plan

3.3.1 Objectives

The University's objectives in carrying out capital investment projects are to:

- Ensure design plans are in accordance with the objectives and principles of any campus master plan;
- Seek a high standard of architectural design solutions and green star ratings;
- Ensure client/stakeholder engagement is maintained throughout the project process;
- Complete projects to agreed time frames, budgets and specifications;
- Carry out post occupancy evaluation for all major projects for input into future projects.

3.3.2 Property Acquisitions

Kensington Environs

An annual amount is programmed within the AMF to purchase residential properties on the perimeter of the Kensington campus. Acquisition of these properties is viewed as a long term strategy to assist in achieving the objectives of the Campus 2020 Master Plan. Property acquisitions are prioritised around existing holdings to consolidate land holdings and facilitate redevelopment options.

Botany Sports Fields

With the sale and disposal of the Little Bay site (see 3.5.3 below) replacement sports fields may be required. If this occurs, land for these activities could be acquired in 2007 adjacent to the existing David Phillips sports field facilities at Botany.

3.3.3 New Buildings

Kensington Campus - New Bio Medical Research Buildings

Following an earlier feasibility study, further identification is being undertaken of clients and building options for new biomedical research facilities on the upper campus. These options will respond to the expected growth in this discipline in the foreseeable future and be aligned with the Campus 2020 Master Plan and the University's Strategic Plan.

The new building options include:

- Developing site C25 as a new Bio Sciences facility in partnership with the Children's Cancer Institute Australia (CCIA), commencing in 2006 with completion in 2009;
- Constructing two new buildings on sites B27 and D27 either side of the Wallace Wurth building in 2010; and
- Extending the floor area of the Wallace Wurth building by constructing additional floors also around 2010.

Kensington Campus - Law Building

A new Law Building is being constructed within the North Mall Development Zone on the lower campus, fronting the University Mall. It will provide 12,000m² GFA of consolidated teaching, research and administrative space for the Faculty of Law, ATAX, the Kingsford Legal Centre and other legal centres. Within the building will be a 350 seat auditorium, two tiered lecture theatres and a Library for the Law collection.

The building will be completed in 2007. At that time Law will relocate from the Library and Mathews Building, thereby making space available for other uses.

Kensington Campus - Analytical Centre

An Analytical Centre of 8,280m² GFA is also being constructed within the North Mall Development Zone on the lower campus, also fronting the University Mall. It will provide two levels of shared specialised instrumentation and laboratory space. The three upper levels will accommodate the School of Chemistry teaching and research. The building will integrate with the adjacent Applied Science and Dalton Buildings to form a science and technology cluster.

The building is expected to be completed in 2007.

Kensington Campus – Faculty of the Built Environment Workshop

As part of the development of the lower campus for University housing, hut C11 currently used for the Faculty of Built Environment workshops will be demolished and the activities relocated to the western campus within a new transportable building. This is expected to occur in 2006.

UNSW Asia Stage 1

The UNSW Asia campus in Singapore will be constructed over a period of approximately 15 years with a total cost of more than \$400m. Stage 1 of the campus will commence in 2007 with four major components, namely:

- Master plan civil works, services and landscaping;
- Library building and teaching accommodation;
- Academic offices and teaching accommodation;
- Science and Engineering Laboratory facility; and
- Student amenities and sporting facilities.

It is expected that the buildings will be ready for occupation in 2008.

College of Fine Arts (COFA) Stage 1

A Development Control Plan is being exhibited by Sydney City Council for long term redevelopment of the COFA campus at Paddington. Stage 1 redevelopment is expected to commence in 2007 with the construction of a new building on the campus and a possible new gallery to exhibit student work.

Mulwarree Housing Stage 3

A Development Application has been approved to construct Stage 3, the final stage in providing low-cost student housing at Mulwarree Avenue, Randwick. Construction is expected to commence in 2006 with the project completed in 2007.

Botany Sports Fields Facilities

With the likely acquisition of land at Botany for replacement sports fields due to the sale of the Little Bay site (see 3.3.2 above), new facilities such as changing rooms, toilets and clubrooms will also be required. These are expected in 2008.

Fowlers Gap Field Station

New studio buildings will be constructed at the field station in 2006 as part of the Fowlers Gap International Residential Art Centre project which intends to create an art centre of international standing in the Australian desert.

Albury Wodonga and Port Macquarie - Schools of Rural Health

As a major initiative, the Commonwealth Department of Health and Aging (DoHA) is funding clinical education facilities in rural population centres where there is coincident presence from one of Australia's faculties of medicine.

DoHA has provided funding to UNSW to construct facilities at Albury/Wodonga and Port Macquarie on land purchased specifically for this purpose. The facilities include academic offices, administrative and teaching space, and student rooms and construction is expected to be completed in 2006.

3.3.4 New Site Infrastructure

Kensington Campus – North Mall Development Zone

As part of the major building proposals within the North Mall Development Zone new site infrastructure will also be carried out in 2006. It comprises:

- Landscaping;
- Pedestrian and delivery access;
- Relocating/replacing existing in-ground electrical, communications, stormwater, water/fire service, sewerage/trade waste, gas and bore water services.

Kensington Campus – Lower Campus Car park

On demolition of the Food Science buildings in 2006 (see 3.5.2 Demolitions below) the site will be converted to an at-grade visitor's car park in accordance with the Campus 2020 Master Plan.

Kensington Campus – Campus Wide Landscaping

Beginning in 2007 new landscaping programs on the Kensington campus will be provided for annually in the AMF. This will assist in creating a superior campus amenity for staff and students and an improved campus experience – a main objective of the Campus 2020 Master Plan.

3.3.5 Building Refurbishment

Kensington Campus - Heffron Building

The Heffron Building was constructed in the 1960's for Chemistry and related sciences. The School of Chemistry now has different needs and will be relocating to the new Analytical Centre and the Dalton Building. The Heffron has significant safety and maintenance issues and is therefore being comprehensively refurbished as academic offices, teaching and post graduate space to consolidate the Faculty of Commerce and Economics.

Work commenced in 2005 and will be completed in 2007.

Kensington Campus - Dalton & Applied Science Buildings

Modifications to these buildings are being undertaken as a consequence of the refurbishment of the Heffron Building, the construction of the Analytical Centre and as part of the rationalisation and re-organisation of accommodation for the Faculty of Commerce and Economics, the School of Chemistry and the School of Materials Science and Engineering.

In the Applied Science building, a consolidated workshop/dangerous goods store is being provided in the basement, staff and students from the old Department of Food Science and Technology are being relocated to refurbished space from old buildings near Gate 2. The opportunity is also being taken to address statutory compliance issues.

These refurbishment works will be completed in 2006.

Kensington Campus - Kensington Colleges

Pending finalisation of project planning for the University housing (see 3.2.4 Project Planning above) and in the period before construction commences on the site, priority statutory upgrades and compliance issues are being addressed in the three colleges of Basser, Goldstein and Philip Baxter. These works will be carried out over three years 2006-2008.

Kensington Campus - Wallace Wurth Building

Improved laboratory facilities for the Biological Resources Centre and some statutory compliance works are being carried out in the Wallace Wurth Building and will be completed in 2006.

In addition, the Faculty of Medicine needs high quality, specialised teaching and research space to cater for forecast growth in research activities and to enable the collocation of several Schools, Centres and units. Major refurbishment of the building is therefore proposed in 2010 in association with the construction of additional floors (see 3.3.3 above).

Kensington Campus – Biological Sciences Building

Improved laboratory facilities for the School of Biotechnology and Biomolecular Sciences and some statutory compliance works are being carried out in the Biological Sciences Buildings and will be completed in 2006.

Kensington Campus - Old Main Building

Major refurbishment of the Old Main Building will be carried out in 2007 and 2008 with the reorganisation of accommodation for the School of Physics and the relocation of the School of Petroleum Engineering from its current location within the proposed University housing site (see 3.2.4 above).

Kensington Campus - Petroleum Engineering Building

On relocation of the School of Petroleum Engineering to the Old Main Building in 2008, the Petroleum Engineering Building may be refurbished to accommodate Facilities Management, also being relocated as part of the development of the University housing proposal. This may include a new Mail Centre and Zone offices.

Kensington Campus - Library Building

A key goal for the Library in the UNSW Strategic Plan is to reconfigure its operation and physical infrastructure. The relocation of Law and its library to the new building on the lower campus (see 3.3.3 above) facilitates the achievement of this goal. This relocation provides a timely opportunity to redesign learning and research space within the Library and to comprehensively address long-standing BCA compliance, occupation, health, safety and security issues.

Architectural consultants have been engaged to carry out an accommodation master plan and building condition audit for the building. It is expected that detailed design and documentation of the first stage of the works will be completed in mid 2006 when Law vacates the Library building. A detailed program will be developed with the consultants with the refurbishment and reorganisation of the Library building expected to be completed in 2009.

Kensington Campus - Goodsell Building

When refurbishment of the Heffron Building is completed in 2007 and the Faculty of Commerce and Economics consolidated within it, the Goodsell Building will be completely refurbished as a student services centre in line with other Universities. Its central location on the campus and the nature of its construction (i.e. an office building) lends itself to a “one-stop-shop” for students.

Units to be consolidated into the new centre will include Student Administration, Equity and Diversity, Careers and Employment, Counselling and the Housing Office. This will then free up space in the Chancellery, Quadrangle and Applied Science Building for other uses.

Kensington Campus - Mathews Building

New research laboratories are required by the Faculty of Medicine to ensure key researchers are accommodated and valuable research grants are secured. Space for these laboratories has been identified in the Biomedical Library within the Mathews Building.

It is proposed to relocate existing study rooms within the library, construct and fit out new PC2 standard wet research laboratories and to construct new support and ancillary facilities including offices, meeting rooms, reception areas by the end of 2006.

In addition, the Mathews Building is the tallest on the campus and has four lifts to service the fifteen floors. These are inadequate in terms of speed and reliability and will be replaced in 2006 at a substantial cost.

Kensington Campus – Chancellery Building

Following consolidation of all student services activities to the Goodsell Building, space freed up in the Chancellery will provide an opportunity to reorganise and consolidate several administrative units. This work is expected to be carried out in 2009.

Kensington Campus – Building H3, Western Campus

Relocation of the School of Safety Science from its huts on the lower campus as part of the development of University housing will necessitate the major refurbishment of building H3 on the western campus. The School will be accommodated in this building in 2006.

Kensington Campus – Campus Wide Building Infrastructure Refurbishment

Provision has been made in the AMF for annual programs to upgrade the building infrastructure on the Kensington campus. These campus wide programs include upgrades to fire safety, florescent lights, electrical switchboards, plant and machinery.

Kensington Campus – Campus Wide CATS Refurbishment

Provision has been made in the AMF for annual programs to refurbish Centrally Allocated Teaching Space (CATS) rooms across the campus. This includes lighting upgrades, seating upgrades, carpet replacements and painting.

Randwick Campus – Building R1

The ground floor of building R1 will be completely refurbished in 2006 to be made fully BCA compliant and to provide 80 child care places in a new child care facility for the University. The existing canteen for the Institute of Languages will be relocated to the other end of the ground floor.

St Vincent’s Hospital – National Centre in HIV Epidemiology and Clinical Research

The National Centre in HIV Epidemiology and Clinical Research (NCHECR) is Australia’s leading HIV/AIDS research facility. NCHECR currently occupies unsatisfactory rented premises in Sydney and has the opportunity to relocate to a planned refurbishment of the Cahill Building on the St Vincent’s Hospital campus.

In 2006 UNSW will finance the redevelopment of two floors of the building with a contribution to the cost of infrastructure and plant. St Vincent’s will make a long term lease available to UNSW over the two floors for the National Centre.

3.3.6 Site Infrastructure Refurbishment

Kensington Campus - Southern Drive

In accordance with the Campus 2020 Master Plan, the internal road on the lower campus from Gate 14 to the tennis courts will be realigned and upgraded. Some additional reserved parking will be provided for Shalom, Warrane and New Colleges and for the House At Pooh Corner child care centre. Improved pedestrian access, lighting and landscaping will also be provided. This work will be carried out in 2006 and 2007.

Kensington Campus - Campus Wide IT

Annual expenditure is programmed within the AMF for new investment and reinvestment in the University’s communications and IT infrastructure and its major software operations. This is vital to maintain the teaching, research, administration and business operations of UNSW and to ensure that it is at the forefront of IT innovation.

3.4 Maintenance & Operations Plan

3.4.1 Objectives

The University's objectives in maintaining and operating buildings, plant and equipment are to:

- Ensure the safe, efficient and continued operation of the University's property assets;
- Manage the full life cycle costs of assets;
- Complete projects to agreed timeframes, budgets and specifications;
- Improve the information contained in the University's asset databases.

3.4.2 Corrective Maintenance

Corrective maintenance on the University's property assets is the responsibility of the Buildings and Grounds unit of Facilities Management and is provided through a combination of contractors and in-house trade staff. Maintenance Zone Managers are responsible for maintenance of the building fabric and finishes. The Engineering branch addresses maintenance problems arising from building plant and equipment, as well as the functioning of campus-wide services such as power, water, gas, sewer and stormwater.

The University has approximately 30 maintenance contracts, but its largest contract for fire services, air conditioning and mechanical plant, and sub-station plant over the past seven years has expired. The maintenance contract is currently being re-evaluated for limited tender.

The forecast expenditure for corrective maintenance has been derived from historical data and does not necessarily reflect the needs of the University. Facilities Management is reviewing the maintenance needs and expenditure of the University's property assets to achieve a more strategic and life cycle cost approach.

3.4.3 Preventative Maintenance

Preventative maintenance is also carried out by the Zones and the Engineering branch of the Buildings and Grounds unit. The maintenance contracts ensure that plant and equipment is serviced and that functionality is maintained.

3.4.4 Deferred Maintenance

The estimated amount of deferred maintenance for UNSW is approximately \$216m of which 90% is on the Kensington campus. Due to capital investment and refurbishment priorities, deferred maintenance is not currently programmed within the AMF but is carried out whenever possible during major refurbishment projects.

Completion of the building condition and compliance audit (see 3.2.4 above) will assist in future programming of deferred maintenance.

3.4.5 Operations

Operational expenditure is programmed annually in the AMF to meet the costs of managing the University's property assets. This includes:

- Security and parking;
- Cleaning and waste disposal;
- Utilities;
- Grounds;
- Sports fields; and
- Other (CATS, information services, customer service centre etc).

In future years and because of the substantial deferred maintenance liability, the relationship between capital expenditure, maintenance expenditure and operations expenditure will be subject to a more rigorous analysis.

3.5 Demolitions and Disposals Plan

3.5.1 Objectives

The University's objectives in undertaking asset demolition and disposals are to:

- Dispose of assets surplus to requirements;
- Dispose of assets where maintenance costs and deferred liabilities exceed the value of the asset;
- Dispose of assets where they no longer exist as "fit for purpose"; and
- Return the funds from the sale of assets to the AMF expenditure stream for future capital works.

3.5.2 Demolitions

Kensington Campus – Food Science Buildings

The Department of Food Science and Technology has been merged into the School of Chemical Engineering and Industrial Chemistry. Staff and students are being relocated to the Applied Science Building and staged demolition of the Department's old brick buildings situated near Gate 2 on High Street is taking place.

Costs will be incurred to finalise the relocation of occupants, complete the demolitions and make good the site in 2006. On completion, the site will become an at-grade visitors' car park in accordance with the Campus 2020 Master Plan.

Kensington Campus – Lower Campus Huts and Other Buildings

Some fifteen buildings will need to be demolished as part of the proposed University housing development fronting High Street (see 3.2.4 above). It is anticipated that the timber huts will be the first of these demolitions and this will commence in 2006. Costs will be incurred to finalise the relocation of occupants, complete the demolitions and make good the site.

3.5.3 Disposals

The site at Little Bay has been approved for sale. Subject to investigations now underway, the site could be more appropriately redeveloped for residential purposes, linked to the adjoining residential redevelopment of Prince Henry Hospital.