



Property Services

Facilities Maintenance Strategy

Version 2.2

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1 INTRODUCTION

The University of Tasmania has a property portfolio of \$707M of which has a centrally maintained facilities and infrastructure asset replacement value in the order of \$650M. These assets are used in support of the University's core functions of teaching, research and community service. The University has student population of 13,800 EFTSU (2009).

The University needs assets that excel in meeting the needs of teaching and research and which will create a distinctive environment that will attract students and staff to meet projected growth targets.

Property Services have an important role by ensuring that limited maintenance and capital works resources are managed to obtain the best possible outcome for the University. Decision about assets, including acquisition, maintenance, operating costs, and disposal costs will need to be made on information on the existing asset base and on the projected needs of the University.

By engaging in a strategic approach to maintenance we increase and enhance the effective use of the University physical assets. At the same time, we decrease the risk of a reduction in services and future financial burdens that will occur as a result of the lack of maintenance.

2 OBJECTIVES

This Facilities Maintenance Strategy (FMS) will provide the structure within which to strategically manage the maintenance and to assist in managing optimisation of the life cycle of the University's assets in accordance with the business needs of the University and service delivery requirements. Its key objectives are:

- Assets are maintained to perform at optimum levels during their life cycle, reducing service disruptions and losses due to failure.
- Critical areas and risks are identified and managed.
- Performance of assets is reviewed to suit core business service delivery and to ensure assets are fit for purpose.
- The cost of maintaining assets over their life cycle is quantified.
- Information is gathered to assist future decision-making and budgeting.

3 MAINTENANCE SCOPE

The Facilities Maintenance Strategy and budget applies to University building assets and associated fixed plant and equipment. It includes building fabric and structure, fixed plant and equipment that are part of a building's services, civil works (roads, paved areas, fencing etc) and site services (water, gas, electricity, storm water drainage, sewerage). The strategy only applies to assets for which Property Services has been assigned responsibility. It does not apply to computers, telephones, vehicles or to Specialist Equipment under the control of Heads of Budget Centres or Operational Research equipment of any type.

4 MAINTENANCE MISSION

To maintain the physical infrastructure to the greatest benefit of the University and to contain costs.

5 MAINTENANCE POLICY

Maintenance programs and plans are developed for Maintainable Assets and aligned with the business planning and service delivery requirements of the University being the foremost driver. Maintenance must be managed to ensure the most efficient and effective expenditure of limited resources to optimise life-cycle costs of assets.

Maintenance funding allocations is prioritised within allocated resources as follows:

- Statutory compliance
- Occupational Health and Safety
- Business Needs
- Cost of asset
- Asset life cycle
- Consequential loss or damage

6 MAINTENANCE DELIVERY STRATEGY & OPERATIONS

6.1 *Preventive Servicing + Fix on Fail approach*

This type of approach provides the most basic (therefore the cheapest) maintenance service available by undertaking regular servicing of plant and equipment that allows plant and equipment to function as per manufactures recommendations and also allows for reactivation of the most basic repairs when things fail or break down.

6.2 *Comprehensive Maintenance approach*

A comprehensive approach to maintenance will incorporate all required servicing, repairs upgrades and replacements as part of the agreement. This approach will also see no residual or backlog maintenance at the end of the contract period. A comprehensive maintenance approach in effect extends the warranty of assets and the client will not be required to pay anything other than the contracted fee. This is the most expensive approach to maintenance delivery.

6.3 *Current situation*

The University has engaged a primary Maintenance Provider (MP) to undertake maintenance services for the General Building and Fabric (GB&F) and Fixed Plant and Equipment (FP&E). The Maintenance Provider's scope of services is predominately a preventive servicing and fix on fail approach. The tender built in a small amount of 'risk sharing' by specifying a plant and equipment Repair Work Liability limit (RWL) of \$2,000 per repair that needs to be undertaken by the contractor as part of the fee paid. The University picks up the cost of all repairs over the RWL. The contract includes the management, administration and co-ordination of maintenance services; undertaking of all legislated maintenance, routine Preventive Maintenance, Corrective Maintenance, allocated Minor Works and assistance in the collection of asset data.

In addition to the primary MP, the University also contracts several other specific maintenance service providers for activities or sites such as; fume cupboard maintenance, Medical Science precinct comprehensive maintenance, and other 'out of area' sites such as Beauty Point, Ceduna and Sydney.

7 MAINTENANCE MANAGEMENT RESPONSIBILITY

Property Services is responsible for overall maintenance policy development and the management and planning of the maintenance of Maintainable Assets within the University's buildings and associated infrastructure through the Facilities Maintenance section.

8 LIFE CYCLE COSTING

In acquiring an asset, the whole of life costs of an asset are taken into account. This includes procurement, operating and maintenance and disposal costs.

An asset will deteriorate over its life-time. During this process some part or elements of the asset will fail before others. An effective maintenance program will ensure that the asset is maintained to achieve its full life potential by a preventive maintenance program that preserves and by a corrective program that restores and replaces the elements which have failed.

An effective maintenance program assists in maintaining the value of an asset during its lifetime, but it will not be able to maintain the asset indefinitely in an 'as new' condition. Maintenance expenditure will increase as the asset ages and elements fail. At the same time, improvements to the asset may be required to meet changed service requirements.

As an asset ages or becomes outmoded, decisions will need to be made as to the cost/benefit of expenditure in maintaining the asset, refurbishing, replacing or disposing. Such decisions must take into account the life cycle costs of the current asset and alternative maintenance solutions. End of Life (EOL) replacements are common when an asset starts to fail on a regular basis. Early replacement not only saves ongoing maintenance expenditure but has the added benefit of providing a new asset warranty period.

9 MAINTENANCE BUDGET

The University, on the advice of the University's Budget Review Committee, allocates an annual maintenance budget to Property Services. Property Services then breaks the budget down into its sub-components and manages the budget for each Project under its control, e.g. corrective, preventive, operations etc.

The primary Maintenance Provider is responsible for planning and managing the preventive and corrective maintenance services within a "Managed Budget". Payments are made to the Contractor on receipt of a monthly Invoice. The primary Maintenance Provider is responsible for 50% of cost in the event the annual Managed Budget is overrun.

The University allocates a total maintenance budget of approximately 0.7% (2009) asset replacement value. Industry best practice suggests that organisations should be allocating a maintenance budget approaching 1.5% ARV.

10 MAINTENANCE STANDARDS

Each asset or element will be allocated a grading to identify the desired maintenance standard that is required for that particular asset. Maintenance standards, conditioning auditing and frequency of servicing / maintenance will vary depending on the importance of an asset in achieving the University's business needs and strategic priorities. The actual asset condition will be compared against the desired maintenance standard on a five-year basis, or in the case of legislation, the required maintenance frequency.

10.1 Maintenance Standards (Grading)

(TEFMA Audit Framework equivalents are also listed.)

AAA - "Exceptional" (TEFMA S5)

In such areas the requirement to preserve the asset in "as new" condition continuously and indefinitely, and to correct unacceptable conditions swiftly and unobtrusively.

AA - "High" (TEFMA S4)

In such areas the requirement to preserve the asset in good condition both visually and functionally, and to respond promptly in the event of failures. An example would be the audiovisual equipment in a main lecture theatre.

A - "Standard" (TEFMA S3)

This standard is the "default" standard, which should apply if no special conditions are present. It is aimed at preserving essential functionality, complying with statutory health, safety and environmental obligations, and rectifying faults before consequential damage incurs additional cost. In such cases the requirement is to preserve the operational capacity of the asset as much as possible. This standard does not in itself require close attention to physical appearance except in so far as it is desirable in order to meet the other criteria.

B - "Minimal" (TEFMA S2)

This standard applies to assets that have a limited life or are in use on an interim basis. Maintenance is aimed at minimising current operational costs whilst continuing to preserve essential functionality for operational purposes and complying with statutory obligations to the maximum extent possible. The standard is normally applied where the expected remaining life of the asset is less than five years or where little use is expected.

C - "Mothball" (TEFMA S1)

This standard applies to assets that are not in current use, either being closed or relocated. Maintenance is aimed at maintaining safety and security, protecting against vandalism or other damage and limiting any cost penalties.

11 CONDITION AUDITING

A desktop assessment of all buildings, central engineering services, site works and external services is to be undertaken every five years to establish the backlog maintenance liability of the property portfolio.

The audit reviews buildings and grounds assets and elements aligned to the maintainable assets description hierarchy of the University and the desired maintenance standard. The results of the audit are to be transferred to the University's Asset Management Information System for backlog liability reporting and backlog reduction program modeling.

The result of the desktop audit identifies buildings or elements that require a more in-depth auditing/review when gauged against the University Strategic Business Plan.

The condition auditing of the assets shall use a risk management approach. The condition of each asset or element is to be assessed in terms of its physical state and any defects, failure or failure history, or non compliance with statutory compliance. These assessments are categorised in terms of the severity of the defects or failure, and the effects in terms of impact on continued operation or ownership.

The following categories and criterion are used to rate the assets:

R5- "Excellent"

Asset has no defects; condition and appearance are as new.

R4 – "Good"

The asset exhibits superficial wear and tear, minor defects, minor signs of deterioration to surface finishes, but does not require major maintenance; no major defects exist.

R3 – "Fair"

The asset is in average condition; deteriorated surfaces require attention; services are functional but require attention, backlog maintenance work exists.

R2 – "Poor"

The asset has deteriorated badly; serious structural problems; general appearance is poor with eroded protective coatings; elements are defective; services are frequently failing; and a significant number of major defects exist.

R1 – "Very poor"

The asset has failed; is not operational and is unfit for occupancy or normal use.

11.1 Risk Assessments

The risk assessment process is the next stage of condition auditing assessments. A risk rating is assigned to an asset that has failed or where an inspection demonstrates that an asset does not meet its ascribed maintenance standard.

Risks may include but is not restricted to statutory, occupational health and safety issues, interruption to service delivery, or consequential damage to other assets. The risk

assessment will highlight the consequence of the condition rating and the relative risk and importance of treating the risk.

The risk priority rating is assigned qualitatively by considering the 'likelihood' versus 'consequence' matrix and allocated an alpha/numeric rating. The risk assessment matrix described below has been developed in accordance with AS4360.

11.1.1 Risk Likelihood

Likelihood	General Description	Rating
Rare	May occur only in exceptional circumstances	A
Unlikely	Could occur at some time	B
Moderate	Might occur at some time	C
Likely	Will probably occur in most circumstances	D
Almost Certain	Is expected to occur in most circumstances	E

11.1.2 Risk Consequence

Consequence	General Description	Rating
Catastrophic	Asset is unusable. Immediate high risk to security, health and safety, property damage, very significant cost of delay/financial loss implication, does not meet statutory requirements.	5
Major	Major disruption to service capability. High probability of risk to health and safety or property, high cost of delay/financial loss implication.	4
Moderate	Constant inconvenience to operations. Some risk to health and safety or property, medium cost of delay/financial loss implication.	3
Minor	Intermittent minor inconvenience to operations. Probable risk to health and safety or property is slight, low cost/financial loss implication	2
Insignificant	No effect on service capability. Negligible consequence.	1

The aggregation of the likelihood and the consequence determines the risk priority in the range demonstrated in the table below:

11.2 Risk Assessment Matrix

Consequence	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood					
A (Rare)	L	L	L	M	M
B (Unlikely)	L	L	L	M	H
C (Moderate)	L	L	M	H	E
D (Likely)	L	M	M	H	E
E (Almost Certain)	L	M	H	E	E

Legend and outcomes:

- E extreme risk; immediate action required
- H high risk; senior management attention needed
- M moderate risk; management responsibility must be specified
- L low risk; manage by routine procedures

11.3 Assessment Methodology

The following steps outline the approach to undertaking the condition assessment.

1. Decide on the model for assessment:
 - a. Desktop assessment; or
 - b. Detailed assessment and site inspection.
2. Decide on the required maintenance standard for the audit.
3. Assess the condition of the building, element or asset.
4. Calculate costs of rectifications
5. Record results into assessment modeling tool (spreadsheet)
6. Conduct risk assessment of the poor condition assets

12 MAINTENANCE PLANNING

All maintenance plans shall align to the University Maintainable Asset Description Hierarchy. The hierarchy is structured to provide the simplest reporting possible but still maintain adequate opportunity to drill repair costs down to specific assets or groups of assets and any legislated requirements. The hierarchy also aligns to good practice subcontractor servicing requirements to minimize the amount of paper work orders printed.

Maintenance plans shall, at a minimum, be first developed to match the asset manufacturers maintenance recommendations. Efficiencies are gained by continual reviewing of plans to match the servicing requirements to the actual asset criticality, utilisation and functionality.

Breakdown and repair activity is continually reviewed to gauge the best maintenance approach for the asset. Maintenance is managed to ensure the most efficient and effective expenditure of limited resources to optimise life-cycle costs of assets for the University.

12.1 Maintenance programs

12.1.1 Preventive Maintenance

Preventive maintenance consists of two types of regular scheduled maintenance activity:

- Statutory maintenance , and
- Life Cycle Efficiency maintenance

Statutory maintenance

Statutory Maintenance is scheduled maintenance that must be undertaken as prescribed by legislation.

The prescribed activities are contained within the:

- a. *Tasmanian Building Act* Ministers Prescribed List (Form 46 schedules), and
- b. *Australian Standards*

Trends show that approx 90% of the Preventive Maintenance expenditure is allocated to the above prescribed maintenance tasks.

Life Cycle Efficiency maintenance

Life Cycle Efficiency Maintenance is scheduled maintenance tasks that are undertaken to extend the life of an asset and to ensure that it operates at its maximum efficiency. These types of maintenance tasks are applied to infrastructure plant and equipment assets that are not specifically identified under statutory scheduling. They normally constitute approx 10% of the Preventive Maintenance expenditure. Examples include pump servicing, electrical switchboard 'hot spot' thermo graphic imaging etc.

12.1.2 Corrective Maintenance

Corrective maintenance consists of two types of maintenance activity:

- Fix on Fail , and
- Panned Corrective maintenance

Fix on Fail

Fix on Fail repairs to the building fabric and fittings represent the majority of expenditure in this category. These types of items normally cannot be deferred and are individually assessed by Property Services staff for criticality due to University core business interruptions or safety / security matters. Examples include door lock failures, cracked glass, building leaks, etc.

The average repair cost of an item in this category is currently approx \$190

During 2009, over 5,000 of these were reported to Property Services from schools and sections.

Planned Corrective

Simple walkthrough condition auditing programs identify small repair items that are not of high priority and can be grouped together to gain better value for money from trades staff undertaking the works. It can also be of value to undertake these repair works during a 'window of opportunity' when the University. Corrective repairs that are scheduled are called Planned Corrective maintenance programs. Planned Corrective tasks are funded from the contracted Managed Budget.

12.1.3 Backlog Maintenance

Backlog maintenance is maintenance that is required to be undertaken but has been deferred due to the lack of funds. Backlog maintenance reduction programs are developed by prioritising the backlog list of works against agreed assessment criteria and scoring methods.

The grading criterion is based on asset Importance and Function. The assessment elements that are scored are:

- *Risk;*
- *Criticality of Assets;*
- *Utilisation; and*
- *Functionality;*

Each element has five levels of rating that produces a total score in the assessment spreadsheet. The works are then allocated to the budget availability according to the score attained.

12.2 Criticality of Assets

Each plant and equipment asset will be allocated a grading to define how critical its function is in respect to the delivery of the University's core service delivery outputs. The rating will inform the level of preventive maintenance and response rate in the event of failure and is used during backlog works programs prioritisation. Gradings are:

C5 'Essential'

This grading indicates that the asset's function is absolutely essential if the core business is to continue functioning as intended or if the asset is required by legislation. An example would be a freezer storing ice core samples or a Fire Indicator Panel.

C4 'Important'

This grading still allows for a high level of criticality to core business requirements without being extreme. An example would be a fume cupboard in a chemistry lab that had more than one fume cupboard or and air conditioner servicing non critical research.

C3 'Desirable'

This grading applies when the basic needs of the service delivery are met. An example would be an air conditioner servicing staff training rooms, meeting rooms, offices etc. Failure of these assets would create an inconvenience but not stop normal activity outcomes.

C2 'Non-Essential'

This grading applies to an asset that may have limited life span or is not considered to be an integral part of the basic core business requirements. An example would be an exhaust fan servicing a material storage room.

C1 'Not Required'

This grading applies to an asset that offers absolutely no return to the basic core business requirements.

12.3 Utilisation

Each asset will be given an utilisation grading which reflects the current utilisation of the asset. The level of utilisation will effect the life cycle of the asset and as a result the asset's maintenance requirements and is used during backlog works programs prioritisation. Gradings are:

U5 'Over utilised'

This grading applies to an asset that is being used beyond its intended capacity.

U4 'Continuous'

This grading describes an asset that is in constant or continuous use, i.e. 24 hrs/day, 7 days a week. An example would be the security surveillance system.

U3 'High'

This grading applies to assets that may be used on a regular basis and for extended periods. An example would be the University's libraries.

U2 'Normal'

This grading applies to standard level of usage such as office administration areas.

U1 'Rare'

This grading applies to an asset that no longer meets the business requirements and is therefore not being used to the full extent. Examples include disused storage areas.

12.4 Functionality

Each asset will be given a functionality grading to reflect how well a current asset fits in with the operation of the business and the design of the space for its current use.

This information will assist in forecasting replacement and/or refurbishment needs and will influence the level and nature of maintenance. Gradings are:

F5 'Not suitable'

This grading applies to an asset that does not meet the operation of the business. An example would be a chemical store in an administration building.

F4 'Inappropriate'

This grading applies to an asset that may be used currently but does not suit the core business. An example would be a classroom being used as a storeroom.

F3 'Usable'

This grading applies to an asset that suits the basic needs of the business. An example would be an electrical system.

F2 'Appropriate'

This grading applies to an asset that still has a high level of suitability but its suitability may change in the future. An example may be the fire detection system.

F1 'Ideal'

This grading applies to an asset that is perfectly suited to the core business and is likely to be so in the foreseeable future. An example may be lecture theatre.

13 BACKLOG MAINTENANCE

Backlog Maintenance is maintenance that is necessary to prevent the deterioration of the asset or its function but which has not been carried out. These maintenance activities are deferred normally due to the lack of funds to undertake the work. These works constitute the backlog maintenance liability.

Backlog maintenance reduction programs are developed to reduce this liability by prioritising the backlog list of works against agreed assessment criteria and scoring methods. A five-year rolling program identifies works that have been prioritised for importance by looking at Risk, Criticality, Utilisation and Functionality.

Backlog maintenance is funded from the Capital Management Plan and is currently receiving \$1.2M annually for liability reduction programs.

14 MINOR WORKS

Minor Works are defined as those activities which are required to accommodate a change in functionality or business requirement of a School or Section, or to enhance University buildings, rooms and site works/infrastructure to standards suitable for their intended function.

Minor Works typical include extensions, additions, alterations, renovations and other improvements to, or upgrading or refurbishment of, University buildings, rooms, and site works/infrastructure including built in furniture.

The process for submitting and managing Minor Works can be found on the Property Services web site at www.utas.edu.au/property-services

14.1 Minor Works - Types

When assets are no longer able to meet their functional service delivery requirements, consideration needs to be given as to whether improvements to parts, elements or to the whole asset can achieve the desired outcomes.

The linkages between Maintenance and Minor Works are close and at times blurred. This in turn may affect the judgment as to which funding source applies. In order to ensure the strategic application of limited funds and regardless of funding source, it is important that a Backlog Maintenance Plan incorporates works which may be classed as Minor Works.

Minor Works of a 'maintenance nature' are described in classes 2 and 3 below.

Minor Works fall into four distinct categories or classes of activity depending on complexity, size, risk and legislation requirements. For clarity of funding responsibilities, all four classes of Minor Works are described in more detail below. Those are:

Class 1 - "Jobs"

These Minor Works are of such a small nature they are generally called 'jobs'. Class 1 works are simple in nature, cost less than \$1,000, do not require any legislated approvals and are predominately of little risk to the University. An example of these works would be the installation of a pin board, small whiteboard, clock, or the purchase of simple furniture items. All changes or additions to the space layout, central infrastructure, or building elements are Class 4 works. Class 1 works are submitted through the Property Services electronic works requests system.

Class 1 works are funded by the requesting Faculty, School, Division or Section.

Class 2 - "FP&E End of Life Replacements"

These Minor Works are projects associated with the replacement of centrally managed fixed plant or equipment infrastructure when the existing has reached the end of its useful or effective life. These are also called life cycle efficiency replacements. Class 2 works are normally identified during condition auditing of the facilities or as part of the regular servicing reporting of the plant or equipment. These works are planned and scheduled to be undertaken at the most cost effective 'window of opportunity' for the University.

Class 2 works are funded centrally as recapitalization expenditure.

Class 3 - "Backlog Maintenance Works"

These Minor Works are maintenance projects associated with the reduction of the University Backlog Maintenance liability. Class 3 works are normally identified during condition auditing of the facilities or as part of the regular reporting when undertaking building fabric maintenance. These works are planned and scheduled to be undertaken at the most cost effective 'window of opportunity' for the University.

Class 3 works are funded centrally as backlog maintenance expenditure.

Class 4 - "Refurbishments or Renovations"

These Minor Works are normally construction type works and include extensions, additions, alterations, renovations and other improvements to, or upgrading or refurbishment of, University buildings, rooms, and site works/infrastructure. Class 4 works will normally require a Building Surveyors' approval and submission to the local city council as a Minor Works. In some cases the works may require full local council planning, building and plumbing approvals. A request to undertake Class 4 works must be provided to Property Services through the submission of a Minor Works Request which is available on the Property Services website at www.utas.edu.au/property-services

Class 4 works are funded by the requesting Faculty, School, Division or Section.

14.2 Response times

Requests for Minor Works or Quotes are submitted electronically to the Help Desk for class 1 jobs or by completing a Minor Works request form for class 4 works. The request should indicate the date when the works are to be completed by. During the briefing stage Property Services staff should agree response and completion times with the client. As a general rule all class 4 Minor Works requests will be actioned as soon as possible but could take up to six weeks. This must be discussed with the client at briefing time. The process for briefing, procuring and handing over minor works is shown below.

14.3 Procurement process

The Minor Works procurement process contains six phases.

1. Receipt of Request

- Requests for Minor Works must be submitted by using the Property Services Minor Works Request submission form available at the following web address: www.utas.edu.au/property-services
- The request **must** be signed by the Faculty Dean or Head of Division.
- The request **must** identify an expenditure account that will be debited with the actual costs of preparation of documentation required for a cost estimate.
- An email is sent to the requestor on receipt of the completed Minor Works Request form by Property Services.
- The request is formally recorded in the UTAS corporate electronic filing system TRIM.
- The request is sent to various Property Services managers for consideration of approval to proceed.

2. Works Briefing

- Property Services facilities officers will undertake the initial investigation / briefing / clarification of the request. The Managing Contractors Project Manager will attend and assist this briefing process (as required) at the discretion of the Property Services Regional Maintenance Manager.
- The briefing discussions with the client/requestor must include:
 - Alternatives for material and supply
 - Why things cost what they do - Value for Money issues

- Broad costs of the proposal
- Material supply and industry timeline issues
- The client must 'sign off' the brief.

3. Tendering

- The Managing Contractor will prepare a list of proposed contractors to tender for each works for the Property Services Regional Maintenance Manager's approval.
- Only relevant contractors and suppliers must be proposed that suit the type of work being undertaken.
- The 'market' will be tested regularly by allowing new contracting companies to tender against 'regulars'
- To align with the UTAS financial policy, written quotes are required for work over \$10,000. A full tender process will be used for works greater than \$100,000
- A minimum of 2 suppliers (preferred 3 if possible) to quote on works.

4. Assessment

- Quotes are opened by the Managing Contractor and recorded on the approved assessment sheet.
- Tenders are to be opened by the Tender committee as per UTAS policy.
- Quotes are reviewed and assessed by the Managing Contractor and a comprehensive recommendation statement forwarded to the Regional Maintenance Manager for approval.
- Quotes are to be regularly 'tested' by the Managing Contractor to ascertain value for money. The following assist in this process:
 - Comparison to Rawlinson's Cost guides
 - Comparison with a Quantity Surveyors report
 - Local knowledge
 - Contractor / Supplier interviews to review quotes
- The project price is written up and presented and explained to the client 'face-to-face' by both UTAS and the Managing Contractor.

5. Project Delivery

- Project Managers take on full responsibility of 'total' management/ownership of all aspects of projects (The Ringmaster). This includes nominated subcontractors such as ITR elements. The Project Manager must be selected up front in the briefing process.
- A timeline program will be developed for all projects. Simple charts suffice and take very little time to put together.
- A project communication plan will be developed by the contractor, approved by the Regional Maintenance Manager and then actioned. Communication tasks could include:
 - Start work notice.
 - Prior notification to client for site area cleanup.
 - If the project is to run for more than a month, then project "on site" meetings will be held. Contractor, Property Services and Client to attend. Minutes will be taken at meetings and filed in the project works folder.

- Reporting of projects takes place at two levels. RMM meetings (detailed status) and Contractor monthly meetings (overview status).
- Project sites must be visited daily by the nominated Project Manager and where possible they will meet with the client or their representative.
- Contractors and Subcontractors will not be left to organise the program with the client. The Project Manager must be the only formal link between client and contractor. Client site intervention creates 'scope creep' and in some cases breaches contract conditions.

6. Handover

- The project will be closed out in conjunction with the client and Property Services.
- The UTAS Project Handover Guidelines will be used for the majority of projects.
- As Constructed information (identified in the Handover Guidelines) must be provided for each works undertaken.
- DLP warranties and Maintenance plans are be updated.
- A client satisfaction survey will be undertaken by Property Services staff on randomly selected projects.

15 CORRECTIVE MAINTENANCE - RESPONSE TIMES

All work requests for re-active corrective maintenance and that do not require immediate attention are submitted electronically to the Property Services Request Desk. The Request Desk validates the priority assigned by the requestor. The Request Desk can also determine the priority in the first instance based on information received by the requestor and where relevant by checking the criticality status and maintenance standard of the asset.

Each priority has a response time and a completion time as indicated below. A response time is the time it takes to first respond to the work request but this is difficult to measure for performance due to reporting linkages to data. Some works requests are subject to an 'investigate' phase prior to commencing the work order. This also adds complexities to the performance reporting. Completion time is the time it takes from original submission to making safe with additional works to follow, rectifying the fault or to complete the actual works.

Completion of a work request may be affected by factors outside of the control of the Maintenance Provider, for example parts may need to be ordered. The Maintenance Provider will update the 'comments' field of the work order the reasons why a work request cannot be completed within the assigned completion time and the system work order status can be changed to 'delayed'. The requestor can see the delayed status when running an electronic enquiry on the works.

15.1 *Priority Ratings, Response and Completion times*

There are three Priority Categories used to distinguish the level of urgency required to rectify the fault.

Immediate

Faults classified as “Immediate Works” include any faults:

- which represent threats to health and safety;
- which severely affect the normal business operation of the facility; or
- which will result in the loss or damage to valuable research or educational materials, if the fault is not rectified.

Maximum Response Time	2 hours (from submission)
Completion Time	4 hours (from submission unless otherwise agreed)

Urgent

Faults classified as “Urgent Works” include any faults, other than those defined for immediate works that affect the facility operating conditions, for example replacement of a damaged GPO.

Maximum Response Time	3 days (72 clock Hours from submission)
Completion Time	4 days (from submission unless otherwise agreed)

Standard

Faults classified as “Standard” include faults to minor equipment or component failure, where the equipment or component does not overly affect normal operation.

Maximum Response Time	2 weeks (336 clock hours from submission)
Completion Time	3 weeks (from submission unless otherwise agreed)

Planned (Undefined Time)

This priority includes all works that are planned and includes routine corrective maintenance, preventive maintenance, quotes and minor works.

Maximum Response Time	2 weeks (336 clock hours from submission)
Completion Time	As agreed with client.

16 MAINTENANCE MANAGEMENT INFORMATION SYSTEM

The effective management of the University’s assets is dependent on the availability of relevant, reliable and timely information. The University’s Asset Management Information System (Archibus) is used to schedule and monitor maintenance and minor works. It is a key tool in strategically planning maintenance, backlog works, budgeting and in the day-to-day management of maintenance.

Interfaces have been developed between the Archibus system and the primary contractors Docket Entry System (DES). This allows simple and efficient transfer of request data and works costs feedback between the systems.

Additional modules are planned to be developed in Archibus to assist in the strategic management of the University’s assets and property portfolio. These include a Project Management Tool (PMT), a Strategic Maintenance Planning Tool (SMPT) and a Condition Audit Management Tool (CAMT).

17 PERFORMANCE INDICATORS

The following performance indicators are used to measure broad maintenance outcomes.

- Preventive and Corrective Maintenance expenditure as a % of Asset Replacement Value
- Preventive and Corrective Maintenance expenditure per square metre
- Preventive and Corrective Maintenance Expenditure per EFTSU
- Backlog expenditure as a % of Backlog Liability
- Backlog liability as a % of Asset Replacement Value
- Backlog expenditure per square metre
- Preventive and Corrective Maintenance Budget as % of Asset Replacement Value
- Corrective Expenditure as a % of Maintenance Budget
- Achievement of Specified Response Times as a % of Job Requests
- Achievement of Completion Times as a % of Job Requests

18 MAINTENANCE GOALS AND STRATEGIES

The following maintenance goals and strategies outline the broad strategies that will be implemented to achieve the key objectives of the FMS. The strategies will form the basis of Maintenance Operational Plans. .

MG = Framework Maintenance Goal.
MGS = Framework Maintenance Goal Strategy.

MG1: *Assets are maintained to perform at optimum levels during their life cycle, reducing service disruptions and losses due to failure.*

MG1-S1: Assets will be defined in accordance with an established asset hierarchy.
MG1-S2: The maintenance standard of assets will be determined to meet University business needs.
MG1-S3: The actual utilisation of assets will be assessed on an annual and ongoing basis.
MG1-S4: The condition of assets will be assessed on an ongoing basis and formally compared with the required maintenance standard every five years.
MG1-S5: Condition assessments and repair history will be used to project and to determine when an asset is at the end of its life cycle and maintenance expenditure is no longer a cost effective strategy.
MG1-S6: Short and long term maintenance plans will be developed.
MG1-S7: Response and completion times will be executed in accordance with the service delivery requirements of the University.

MG 2: *Critical areas and risks are identified and managed.*

MG2-S1: Assets will be reviewed and assigned a criticality, utilization and functionality grading reflecting the business needs of the University.
MG2-S2: Assets will be assessed upon failure against criticality grading and for risks.
MG2-S3: Performance monitoring will be undertaken of and the condition of critical assets with a grading of 1 or 2 will be regularly assessed and assessed for risks.

MG2-S4 Preventive maintenance plans will develop a schedule of maintenance for each critical asset with a grading of 1 or 2 at a sufficiently high level to prevent failure from occurring.

MG 3: *Performance of assets is reviewed to suit service delivery and to ensure assets are fit for purpose.*

MG3-S1 Heads of School/Section are requested to confirm the criticality grading of assets that support their service delivery at the time of their initial assessment.

MG3-S2 A desk-top audit of the criticality grading of assets is undertaken on a three year rolling basis.

MG3-S3 Heads of Schools/Section are requested to confirm the criticality grading of assets on a three-year rolling basis.

MG3-S4 Annual and ongoing condition assessments of assets will be compared with operational requirements.

MG3-S5 Service Delivery Agreements will be entered into with each Faculty and Division.

MG4: *The cost of maintaining assets over their life cycle is quantified.*

MG4-S1 All maintenance costs are captured against each asset.

MG4-S2 Maintenance costs will be measured against criticality of the asset.

MG4-S3 Maintenance costs will be measured against utilisation of the asset.

MG4-S4 Maintenance costs will be measured against revenue from the asset.

MG4-S5 Operating costs will be measured against facilities.

MG5: *Information is gathered to assist future decision-making and budgeting*

MG5-S1 The Asset Management Information System will be used to systematically record information and to prepare reports.

MG5-S2 Walk through Condition Assessments will be undertaken every two years to identify current and future maintenance liabilities.

MG5-S3 Information will be gathered to provide reports on key performance indicators.

MG5-S4 Customised reports will be developed to meet the specific reporting need.

19 DEFINITIONS

Backlog Maintenance: maintenance that is necessary to prevent the deterioration of the asset or its function but which has not been carried out. Normally defined as the backlog maintenance liability.

Backlog Maintenance Liability: the value of maintenance works or tasks identified through audits and plans but not undertaken.

Backlog Maintenance Programs: works or tasks undertaken to reduce the Backlog Maintenance Liability as funds are made available.

Corrective Maintenance: the actions performed, as a result of failure, to restore an item or asset to its original condition, as far as practicable. Corrective maintenance may or may not be programmed (i.e. Reactive or Planned).

Criticality: the measure that defines how critical the function of an asset is in respect to the delivery of the University's core service delivery outputs.

Deferred Maintenance: maintenance which is due to be carried out in the current financial year but which intentionally will not be carried out because of shortage of funds or unavailability of parts. Such maintenance should be added to the Backlog Maintenance awaiting attention.

Functionality: the measure of how well a current asset fits in with the operation of the business and the design of the space for its current use.

Life cycle costs: the full cost of maintaining an asset during its life time and includes procurement, operating and maintenance, as well as disposal costs.

Maintainable Assets: the University's maintainable assets are buildings and associated fixed plant and equipment. It includes building fabric and structure, fixed plant and equipment that are part of a building's services, civil works (roads, paved areas, etc), above and below ground infrastructure and site services that supply to a building or property (water, gas, electricity, storm water drainage, sewerage).

Maintenance: all actions necessary for retaining an item or asset in or restoring it to its original condition. Maintenance excludes building cleaning.

Maintenance Provider: The University's primary maintenance contractor commissioned and contracted to undertake the required Maintenance activities of Maintainable Assets as prescribed by legislation to facilities as directed by the University.

Maintenance Standard: a measure of the condition that an asset is required to meet.

Managed Budget: the agreed budget amount from which a contractor must perform all preventive and corrective maintenance activities.

Minor Works: works/repairs that are required to enhance assets/facilities to standards suitable for their intended function. This includes refurbishment/renovation.

Operational Research Equipment: the plant and equipment required to undertake operational research activities of all sorts. Examples include water temperature control systems for marine research, electron microscopes, autoclaves, laminar flow cabinets, reciprocating air fume cabinets, air conditioners (not for people comfort) etc.

Preventive Maintenance: the actions performed to retain an item or asset in its original condition as far as practicable by providing systematic inspection, detection and prevention of incipient failure. Preventive maintenance is normally programmed.

Specialist Equipment: the equipment used/controlled by Heads of Budget Centre's staff in undertaking normal business. Examples include computers, furniture, copiers, and other plug in equipment.

Utilisation: the measure of determining an asset's relevance to its business requirements by defining how intensively the asset is used.

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