Property Services

Design Standard

Volume Two: Architecture & Planning

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RMIT University

Design Standards – Volume Two Architecture & Planning

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Version Control

This document will be updated and re-issued to reflect approved changes to content, and is subject to version control. The version record and status is documented below

Document Change History [1]

Version	Date	Author	Comments
7	12/10/2016	Property Services	Final & approved complete review of standards

Owner

The overall responsibility for these standards resides with RMIT University Property Services.

Review

This Document is reviewed every two years.

[1] Printed copies of this document are considered uncontrolled and may not reflect the most recent revision

Table of Contents

1. Introduction

1.1. Background

This document details the minimum RMIT design requirements for fire protection systems. It forms part of the suite of RMIT Design Standards set out below. All volumes of the standards are available on the RMIT Property Services Design Standards web page.

- Volume One Introduction
- Volume Two Architecture and Planning
- Volume Three Electrical Systems
- Volume Four Fire Protection Systems
- Volume Five Hydraulic Systems
- Volume Six Mechanical HVAC Systems
- Volume Seven Vertical Transportation Systems
- Volume Eight Building Management Systems
- Volume Nine Security Systems
- Volume Ten Communications
- Volume Eleven Audio Visual (AV)
- Volume Twelve Landscape
- Volume Twelve Environmentally Sustainable Design
- Design Standards Checklist

The above documents can be downloaded from RMIT University Property Services – **Design Standards Brief** website.

This document should be read in conjunction with ***Volume One - Introduction,*** which provides context on the organisational and governance arrangements that apply to the design and construction of new facilities and describes the key principles that underpin the requirements of the Standards:

- Safety
- Accessibility
- Innovation
- Student Experience
- Maintainability and Serviceability
- Modularity and Standardisation
- Collaboration
- Reliability
- Compatibility
- Sustainability
- Heritage
- Life Cycle
- Precinct Wide Solutions
- Connectivity
- Equity

1.2. Purpose

The purpose of this document is to set out the minimum requirements for architecture and planning activities. The aim is to provide direction to the project team on RMIT's expectations for the operability, maintainability and aesthetic approach in this area across all RMIT University campuses. This will also inform the level of quality and budgeting for greater accuracy of project estimates. Any design aspects not specifically addressed by this document must be identified by the consultant during the design process and shall be brought to RMIT University's attention for resolution.

1.3. Relationship to the Building Code and Australian Standards

These Design Standards do not set out to describe or compromise in any way the normal requirements and provisions which are detailed in relevant building codes and standards. If the requirements of the Design Standards are at variance with the requirements of good architectural practice, the National Construction Code and/or the requirements of the relevant statutory authorities, then the requirements of the Design Standards shall be superseded accordingly.

Facilities shall be designed to comply with relevant Standards and Codes, applicable to the proposed work and current at the time of design. Codes, Standards and Guidelines issued by government authorities may be applicable.

This document does not relieve any person or company commissioned by, or contracted to, RMIT of their responsibility to comply with the requirements of all relevant legislation, including but not limited to;

- The National Construction Code, local government ordinances,
- Fire Safety Act, Workplace Health and Safety Act,
- Australian Standards 1428 Series
- And all other relevant Australian and international standards.

If an ambiguity occurs between this document and relevant legislation, the issue shall be conveyed in writing to the nominated RMIT University Property Services representative.

1.4. Accessibility

Building design shall enable ready access by persons with disabilities in accordance with the National Construction Code, Disability and Discrimination Act, Disability (Access to Premises - Buildings) Standards and Australian Human Rights Commission Guidance https://www.humanrights.gov.au/our-work/disability-rights/guides. Specific consideration should be given to:

- Entranceways that enable disabled persons to enter and exit the building through the same doorways as the remainder of the University population
- Operation of vertical transport shall be independently operable by all users
- Availability of accessible bathroom facilities
- Provision of accessible car-parking spaces
- Lecture theatres and classroom facilities that provide a variety of accessible locations
- Requirements for braille signage and hearing augmentation

1.4.1. Design shall comply with the current RMIT Disability Action Plan, and the Equity and Social Inclusion Plan. Which are available on request.

1.5. Demonstrating Compliance with the Design Standards

All deviations must be approved by RMIT prior to commencing design. Unless a robust justification is provided for deviations from the Standards, it is unlikely that approval will be given.

Design Standards compliance is achieved through completion of the **Compliance Checklist** and endorsement by RMIT of any proposed non-compliances.

2. General Requirements

2.1. Design Principles

Volume 1 Introduction, describes the key principles that underpin the requirements of the Standards. These principles include:

- Safety
- Accessibility
- Innovation
- Student Experience
- Maintainability and Serviceability
- Modularity and Standardisation
- Collaboration
- Reliability
- Compatibility
- Sustainability
- Heritage
- Life Cycle
- Precinct Wide Solutions
- Connectivity
- Future Proof

2.2. Due Diligence

Prior to commencing the design of any project, a **Due Diligence Report** shall be prepared by suitably qualified and experienced subject matter experts in order to establish the constraints imposed by the existing environment on the design, construction and subsequent occupation of the facility.

The **Due Diligence Report** shall include, but not be limited to:

- Acoustics
- Condition and capacity of reticulated services
    - Electrical Services, including Data and Communication Services
    - Mechanical Services
    - Hydraulic Services
    - Fire Systems
- Easements
- Geo- technical
- Structure
- Rights of light
- Wind
- Flood or inundation issues on site or adjacent to site
- Tree Protection Zones/Native Vegetation
- Natural and culturally significant existing assets to be retained
- Contaminated soil/land
- Hazardous materials
- Existing building fabric
- Limitations of functional layout

- Fixtures and fittings being retained

2.2.1.	A due diligence report shall be prepared for the project and solutions identified to address identified constraints.
2.2.2.	RMIT holds baseline data for hazardous materials within buildings (Division 5 Register) and tree protection zones. This information can be located by approved Contractors via Property Central **https://propertycentral.rmit.edu.au/mapEnquiry/** Seek direction from RMIT Project Manager on process of approval and retrieval of data. All information is provided in good faith and is to be validated/supplemented by the Contractor as required by the scope of the Project.

2.3. Workplace Health and Safety (WH&S)

This section should be read in conjunction with **Volume 1 Introduction** and **Volume 9 Security** and the **Safety in Design Guidelines** (LINK) which are available on request.

RMIT University must provide a safe and secure environment for all students, staff and visitors including service personnel. One important safety and security requirement is to achieve crime prevention through environmental design. Key elements of this design process are detailed in the **CETPED Guidelines; Crime Prevention through Environmental Design.**

2.3.1.	The design incorporates logical street access directing visitors to administration facilities and permitting the supervision of entries.
2.3.2.	The building design and choice of finishes discourage vandalism and abuse.
2.3.3.	The design avoids entrapment spots where people can be concealed or trapped without observation.
2.3.4.	The design provides night lighting/sensors at access points.
2.3.5.	Security lighting is provided to concourses, under crofts and outdoor pavements, exterior doorways, corridors and stairways.
2.3.6.	The design incorporates lighting to cover after-hours usage.
2.3.7.	The design compartmentalises facilities for out-of-hours use.
2.3.8.	The design incorporates well placed external PA speakers and CCTV.
2.3.9.	The design allows good supervision of all areas through passive observation such as windows overlooking pedestrian routes.
2.3.10.	The layout incorporates safe access to toilets including, where relevant, out-of-hours use. Consideration has been given to location of amenities so as not to promote loitering or isolate entrances.
2.3.11.	The layout incorporates safe out-of-hours access to car parks, bicycle parks and other transport hubs.
2.3.12.	Secure fences shall be designed and constructed in a way that does not impede sight lines around the site.
2.3.13.	Blind corners are to be avoided, and reliance on enclosed corridors is to be minimised. Visual connection between spaces is to be prioritised.

2.4. Passive Design

Designs should consider passive design solutions as part of an integrated approach to design. The design shall comply with the following standards in addition to specific project brief requirements;

2.4.1.	When designing a new building or significant addition, the building is to be sited and oriented to optimise passive design opportunities and maximise use of the sun for temperature control and day-lighting.

2.4.2.	The design utilises natural light wherever possible and minimises any negative effects of sunlight and glare (e.g. on computer screens and workspaces in office areas). The floor plan and façade design achieves a Daylight Factor of 2% at 720mm above finished floor level under a uniform sky, for at least 60% of the useable floor area.
2.4.3.	The design maximises solar access and avoids shading of neighbouring sites.
2.4.4.	Consideration should be given to local micro climate, including prevailing winds and hot spots.
2.4.5.	Design consideration is to be given to providing adequate natural ventilation, where possible natural or mixed mode ventilation is to be utilised.
2.4.6.	Ventilation openings should be onto areas that are as dust free as possible. Consider the possible effects on adjoining buildings, public open space, and air flow conditions.
2.4.7.	The design leverages the use of exposed thermal mass in order to minimise the heating and cooling load.
2.4.8.	The design avoids creating adverse weather conditions for neighbouring areas e.g. wind tunnels.
2.4.9.	The design solution minimises impacts on adjacent properties, including out of hours activities.
2.4.10.	In new buildings the design shall provide for 60% of the useable floor area to have a direct line of sight to the outdoors or to a day-lit internal atrium.
2.4.11.	Integrated building elements that offer multiple benefits are favoured over one-off technologies.

2.5. Space Guidelines

RMIT has agreed schedules for the provision of space in their facilities. Office space and amenities are allocated to staff depending on the classification, function performed and the number of staff in an area. Similarly, learning, teaching and research spaces have to meet or exceed standards set by state government and the Tertiary Education Facilities Management Association (TEFMA).

The **RMIT Space Allocation and Accommodation Policy** outlines requirements by space type for workspaces, meeting and conference facilities, learning and teaching areas and research areas. Further detail on the specifications for workspaces is provided in the **RMIT Workspace Guideline**, which is available from RMIT's Property Services Planning and Asset Utilisation team on request.

All designs should adhere to the Space Allocation and Accommodation Policy and the Workspace Guideline.

2.6. Planning for Flexibility, Reconfiguration and Expansion

The built environment at RMIT is continually adapting to meet programme and departmental change. All developments shall consider the lifecycle of a project, and design accordingly, in line with the following criteria;

2.6.1.	The siting of building elements shall make provision for future expansion.
2.6.2.	The design shall incorporate long span structures.
2.6.3.	The design shall separate structure from cladding, internal walls and services (separate frame and infill).
2.6.4.	Floor to floor heights shall allow for future change of use.
2.6.5.	The design shall incorporate components and materials of a size that suit the intended means of handling during construction and provide realistic tolerances.
2.6.6.	RMIT encourages the exploration of innovative, aesthetically focussed products in the building fabric, but asks that in doing so; the design team carefully consider the selection

	of construction technologies.
2.6.7.	The use of untested technologies, which have been in use for less than two years, is discouraged. If used they must be rigorously detailed, and proved fit for purpose by the consultant team. Written approval is to be obtained from RMIT Property Services by the Consultant.
2.6.8.	The design shall incorporate modular design components, materials and a building system where appropriate to facilitate alterations, recyclability, and reuse of components.
2.6.9.	The design shall keep the different types of components to a minimum.
2.6.10.	Load bearing walls are to be avoided and limited to cores, stair walls, lift shafts and toilet areas.
2.6.11.	Light-weight internal walls are to be incorporated, and designed to be easily deconstructed.
2.6.12.	Floor plate dimensions shall facilitate future expansion and reconfiguration: i.e. standard modules and material dimensions.
2.6.13.	Functional areas within the facility shall have the capacity for future expansion.
2.6.14.	Multiple configurations of teaching spaces shall be possible without significant alterations.
2.6.15.	Teaching spaces shall be furnished with non-fixed joinery that enables reconfiguration of space as required for evolving uses throughout the day or over time. Re-configurable joinery shall be used in preference to permanently fixed joinery and lightweight, mobile furniture shall be incorporated where practicable.
2.6.16.	Public spaces shall be predominantly furnished with permanently fixed joinery to prevent loss of items through theft and ensure paths of exit are not compromised by loose items.
2.6.17.	Design building services reticulation (including ducts and risers) to accommodate future expansion and/ or reconfiguration. (Refer also to building services sections of the Design Standards.)

2.7. Retail Tenancies

Requirements for the fit-out of retail tenancies are beyond the scope of this Design Standard but are detailed in the Retail Fit-out Guideline.

2.7.1.	Cold shell works shall enable compliance with the requirements set out in the **Retail Fitout Guideline**, landlord works.

3. Building Design and Construction

3.1. General

Designs are to give consideration to regulatory requirements, the local micro-climate, heritage and existing built environment. The design is to incorporate the following additional requirements;

3.1.1.	Projects are to comply with green building rating systems such as Green Star, at the direction of RMIT; consultants are to confirm the requirement on a case by case basis.
3.1.2.	Structural grids are to be configured in such a way as to avoid locating columns in teaching spaces and corridors.
3.1.3.	Floor slab design provides for future coring of up to 200mm diameter and 120mm square.
3.1.4.	The durability of all externally exposed reinforced and prestressed concrete shall be designed and specified to achieve a design life of 50 years.
3.1.5.	Slabs shall be designed or protected to prevent dusting or breakdown under expected usage.
3.1.6.	Falls to raked suspended pavement and roof slabs shall be incorporated in the structure or created through a build-up screed. Bituminous surface treatments shall not compromise falls.
3.1.7.	Membranes at wall junctions of exposed slabs shall be coved to contain moisture.
3.1.8.	Levels of drainage outlets shall be set to provide a relief point for seepage at the membrane level as well as the normal run off at granolithic level.
3.1.9.	Floor wastes are required within all wet areas i.e. laboratories, toilets, plant rooms, tunnels, laundries, etc. and adequate falls to these points shall be specified and achievable. Floors shall be graded to the floor wastes.
3.1.10.	For floor waste requirements refer to 6.4.2 Floor Wastes, in Section 6 of this document.
3.1.11.	All risers shall be fitted with an approved flange and shall be cast into the concrete floor slab.
3.1.12.	Expansion joints are to continue through the surface finish where necessary and joints in different materials are to be aligned.
3.1.13.	As a general rule, the junctions between individual buildings are to be treated independently, i.e. a structural separation of 30mm minimum is to be maintained.
3.1.14.	The architect and/or the lead consultant shall coordinate with the wider design team to enable design documentation that describes the air tightness requirement and how to achieve it in construction.
3.1.15.	For new buildings, documentation shall incorporate design detail and performance requirements to achieve good air tightness of the building envelope. The entire building shall be documented to achieve an air permeability index of better than 5 m3/h/m2 at 50 Pa, as defined by “The Air Tightness Testing and Measurement Association” Technical Standard L2. (www.attma.org)
3.1.16.	For buildings undergoing refurbishment, air tightness investigations should be undertaken prior to specification of HVAC solutions. The preference is to improve the air tightness of the building envelope rather than specifying higher capacity HVAC systems to accommodate poor envelope performance.
3.1.17.	Provision shall be made in the design for the following safe and practical access for: • External and internal window cleaning • Cleaning of sunshades • Facade cleaning (clear unobstructed building perimeter access is required) • Internal and external maintenance • Balcony cleaning (where applicable) • Cleaning and painting of internal and external surfaces

3.2. External Façade

For material and finishes specification criteria refer to section 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.2.1.	All relevant forms of construction should be presented to RMIT at an early stage to ensure that the emerging design reflects materials and systems acceptable to RMIT.
3.2.2.	All materials have been selected for their likely availability, low maintenance and colour consistency over a 20-year building period.
3.2.3.	Applied finishes such as paint or render are to be avoided to all external elements.
3.2.4.	External facades are designed and detailed to reduce the likelihood of dust collecting on the exposed surfaces.
3.2.5.	External facades, building and services elements shall be designed to mitigate the potential for bird roosting and nesting. Where this is unavoidable, anti-roosting wires, spikes or other appropriate physical deterrents are to be incorporated.
3.2.6.	Flashings are provided to panel drain points, to heads and seals of doors, windows and louvres as well as internal and external corners of facade materials.
3.2.7.	The design shall have no building service visible on the outside of the building, the placing of protruding building services or equipment is avoided or shielded from view.
3.2.8.	The design shall avoid the extensive use of caulked joints. Alternative solutions using flashings and mechanical seals are to be utilised.
3.2.9.	Façade Staining • Façade staining has been avoided by careful design and detailing to shed water clear of the building and clear of the lower projections and pathways. • Parapet cappings are designed to prevent façade staining. • The design has been detailed to avoid staining cause by leaching of timber products onto facade and ground elements.
3.2.10.	Anti- Graffiti • Vandal and graffiti resistant finishes shall be incorporated at ground level; • Anti-graffiti protection shall be applied to all brick and concrete surfaces.
3.2.11.	Access and Maintenance • Buildings greater than three floors in height shall be designed to include or accommodate a fixed building access system for maintenance and cleaning of the external facade. • Consultants must obtain written approval from RMIT Property Services for the building access system for the design.

3.3. Roofs

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

There shall be close collaboration with the consultant team and RMIT to ensure that roofs comply with the Design Standards and project specific requirements.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.3.1.	The roof design shall avoid weather ingress during adverse weather events.

3.3.2.	Roof and roof drainage systems shall accommodate a 1:100 year storm event.
3.3.3.	Minimum roof pitches shall be avoided. Roof pitches of less than 3 degrees are generally not acceptable.
3.3.4.	Dissimilar metals are not to be used in roofing installations.
3.3.5.	The roof space shall be well ventilated.
3.3.6.	Roof access door/hatches including ladder /stairs access shall be keyed to RMIT keying policy.
3.3.7.	Light coloured roofing and cladding should be utilised to minimise heat absorption.
3.3.8.	Full and appropriate calculations shall be undertaken to establish roof drainage requirements and the capacity of the design to properly discharge rainwater and to incorporate fail-safe design practice.
3.3.9.	Where practicable, the design shall avoid box/internal gutters and internal downpipes. If specified these shall: • Be appropriately detailed to eliminate the risk of blockage and flooding • Include visible overflows • Overflows are to discharge conspicuously in the event of blockage. • Overflow design to avoid staining of external facades • Ensure that the overflow is not directed to main downpipe • Be fully accessible for cleaning.
3.3.10.	Box gutters and downpipes and other inaccessible components such as valley gutters shall be constructed from stainless steel, copper, zinc or PVC.
3.3.11.	All gutters shall be fixed independently of roof decking and over-flashings with adequate expansions joints.
3.3.12.	Gutters shall be a minimum depth of 90mm with a minimum of 25mm freeboard.
3.3.13.	All box gutter sumps shall be fitted with removable galvanised mesh type leaf guards across the full area.
3.3.14.	Sumps are to be a minimum of 450mm and depth of 150mm.
3.3.15.	Rainwater downpipes are to be sized to avoid leaf litter blockage.
3.3.16.	Eaves gutters are to be run into large, external downpipes of minimum 150mm diameter through rain water heads.
3.3.17.	Downpipes shall be detailed to discharge over collector pits at ground level, each incorporating a leaf trap and grate at ground/surface level. The grate level is to be at least 75mm above any garden mulch. For cleaning purposes clear space is to be allowed between the bottom of downpipes and the grate.
3.3.18.	Internal downpipes within ducts shall be sanitary plumbing class UPVC or HDPE and shall be oversized (min 100mm diameter). When PVC is used it should be in accordance with **The Best Practice Guidelines for PVC in the Built Environment** as per the Green Building Council of Australia.
3.3.19.	Downpipes shall not be cast into concrete columns, but shall be enclosed in a suitable duct with inspection openings.
3.3.20.	To avoid damage, downpipes shall be located in protected areas away from heavy pedestrian or vehicular traffic. Where downpipes in vehicular areas are unavoidable, permanent bump protection is required.

3.3.21.	Access and Maintenance • A complying fixed roof safety system shall be provided for ongoing roof maintenance, plant access and cleaning. • Access to the roof shall be designed to allow for ease of replacement of roof mounted items. • Safe access is provided for maintenance to green walls and green roofs.
3.3.22.	For roof mounted equipment: • Lift access is to be provided to any roof top plant space. • Access to any roof mounted plant is via a proprietary roof walkway and safety system (to prevent damage to roof sheeting)
3.3.23.	Rainwater Collection/Re Use Where appropriate, rainwater is to be collected in underground tanks and reused for toilet flushing and irrigation.
3.3.24.	Lighting Protection Where appropriate direct strike lightning protection, power and data protection, and earthing/grounding systems shall be installed.

3.4. Internal Walls and Partitions

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.4.1.	Walls are of durable construction with a hard wearing, easily cleaned finish.
3.4.2.	In high traffic areas, Villaboard or High impact plasterboard is to be used in high impact areas such as corridor, workshop etc.to a height of 1800mm.
3.4.3.	Villaboard or equivalent is to be used in wet areas
3.4.4.	Corner protection provided to high impact external wall corners
3.4.5.	Construction is suitable for secure fixture of joinery items such as benches, TV screens, shelves (accounting for heavy book loadings), noticeboards, whiteboards, etc. additional noggins are to the included where required.
3.4.6.	Paint finishes (except in toilet, change room or other wet areas) are a low sheen and on a monolithic flat surface.
3.4.7.	Walls behind teaching areas are to be monolithic flat surfaces with matt white painted surface finish; keep clear of fittings and services.
3.4.8.	Visual connection between spaces and to the outside is to be prioritised with appropriate mix of solid and glazed internal walls and partitions.
3.4.9.	Horizontal (dust collecting) surfaces are to be minimised.
3.4.10.	Walls are acoustically insulated and fit for the intended purpose of the space
3.4.11.	Expensive decorative wall materials and linings are generally to be avoided.
3.4.12.	Feature wall linings are to be submitted and approved by RMIT; general use spaces shall have limited scope for approval of decorative linings.
3.4.13.	Glazed Partitions • Glazing partition framing to be proprietary commercial aluminium sections suitable for the intended purpose. • Transparency and visual connectivity to be achieved in all areas. • Frames are to have a powder coated or anodised finish.

3.4.14.	Glazing Decals • Decals to full height glazing in teaching spaces to be provided to meet minimum statutory requirements, obscuring the view into teaching spaces with film or decal is not acceptable. • Decals or film to offices are to ensure that some transparency is maintained to all enclosed spaces. Opaque film is not acceptable to any area. • Print on clear film or laser cut decals are acceptable.

3.5. Floors

RMIT encourages the exploration of innovative, aesthetically focussed products in the building fabric, but asks that in doing so, the design team complies with the following:

3.5.1.	All floor penetrations and associated service pipes are to be documented and to be fully sealed with flexible material to control water penetration between levels and fire separation between compartments.
3.5.2.	Suspended floors, which are required to support plant or equipment that will induce vibrations, are to be assessed by a suitably qualified and experienced specialist as fit for purpose.
3.5.3.	New floors are to be assessed by a suitably qualified and experienced specialist to establish the risk of footfall vibrations.

3.6. Materials and Finishes

The selection of materials and finishes in a project will have a significant impact on the frequency and intensity of cleaning required in the completed project space. RMIT encourages the exploration of innovative, aesthetically focussed products in the building fabric, but asks that in doing so, the design team complies with the following:

3.6.1.	General All material and finishes specification shall comply with the relevant criteria listed below, any deviation from this requires approval in writing from RMIT Property Services: • Are as far as practical Australian made and locally/nationally available • Are generally low maintenance • Highly durable • Acoustically appropriate • Avoid the use of materials that are untested • Vandal and graffiti resistant • Resistant to staining, fungi growth • Avoid materials that will corrode in the local atmosphere • Resistance to soiling of external and internal surfaces, easy to clean • Appropriate to chemical use requirements including availability of products for maintenance of surfaces have been considered • Properties which affect the ability to apply surface finishes have been considered • The number of specialised products is minimised • Material selections are compatible with all other finishes and facilitate future expansion or upgrading.
3.6.2.	Indoor Pollutants • Low VOC paints, adhesives, sealants and carpets in line with Green Building Council of Australia (GBCA) limits. • Formaldehyde emission minimisation in line with Green Building Council of Australia

	(GBCA) limits.
3.6.3.	Responsible Building Products • Best Practice Guidelines for PVC in the Built Environment compliance. • Refer to section 3.6.20 Timber for timber and engineered wood requirements.
3.6.4.	A colour and materials board shall be submitted to RMIT for review and approval
3.6.5.	Materials shall be selected appropriate to the purpose of the space, and expected life cycle advised by RMIT.
3.6.6.	Floor Finishes Table 1: Floor Coverings Guide sets out and provides the minimum floor finish requirements for areas typically found across campus. Floor finishes shall be selected based on their ability to meet the following requirements: • Durability • Capability for economic and rapid repair • Minimised cost of cleaning • Antistatic • Commercial grade • Compliance with Slip resistance • Compliance with fire regulation requirements • Ability to disguise dirt, soil and stains • Single colour or flat matt flooring products are not acceptable. i.e no black solid colour flooring is permitted • Appropriate thermal and tactile comfort with regard to intended room usage • Acoustic compatibility with background and activity noise levels and appropriate levels of noise attenuation
3.6.7.	Floor finishes shall be selected based on their appropriateness for the volume, intensity and nature of foot traffic to which they are likely to be exposed.
3.6.8.	Carpet shall not be selected for areas subject to in excess of 5000 persons per day, except where approved by a suitably qualified and experienced specialist.
3.6.9.	Homogenous vinyl products with coved skirtings are preferred in wet areas and kitchens, tiled flooring is discouraged.
3.6.10.	Where there is a possibility of water, oil, grease or sawdust, occurring, or where there are steps/ stairs, etc. floor finishes shall be selected based on their ability to comply with safety and slippage requirements.
3.6.11.	Selected floor finishes shall be permanently antistatic such that objectionable body voltage discharges are avoided when the driest internal humidity conditions are being experienced by the building.
3.6.12.	Suitable water-resistant flooring, with a minimum appropriate slip resistance, shall be selected for all wet areas, including the immediate vicinity of water dispensers, kitchenettes and tea points.
3.6.13.	Internal wall finishes shall be protected from damage caused by floor polishers and vacuum cleaners at their junction with adjacent floors through the incorporation of appropriate height skirtings.
3.6.14.	Low VOC material and adhesives shall be used for all flooring. PVC materials are to be avoided.
3.6.15.	Exposed concrete floor finishes shall be sealed to minimise dust.
3.6.16.	Sub-flooring membranes shall be graded to the puddle flange.
3.6.17.	Door thresholds and trims shall be used at all material junctions. • The preferred threshold strip is the RAVEN RP95, alternatives to be submitted for approval by RMIT prior t specification.

3.6.18. Laminates

Standard Laminate Thicknesses are to be used;

- For horizontal surfaces fixed to a continuous substrate: 1.2 mm.
- For vertical surfaces fixed to a continuous substrate: 0.8 mm.
- For post formed laminate fixed to a continuous substrate: 0.8 mm.
- For vertical surfaces fixed intermittently (e.g. to studs or framing system): 3.0 mm.
- For edge strips: 0.4 mm.

3.6.19. Homogenous Products (Vinyl, Linoleum etc.)

All specified homogenous floor finishes shall be:

- Environmentally sustainable product with supporting documentation validating compliance or Third party product certified such as:

Ecospecifier – GreenTag GreenRate,

GECA certified product or

The Institute for Market Transformation to Sustainability – Sustainable Materials Rating Technology

- Genuine low maintenance products, with a clear upper surface treatment incorporated during manufacture and a guarantee for a minimum of five years.
- At least 2 mm thick sheet form commercial grade with solid welded junctions to be fully heat welded on installation
- The nominated colours and patterns are required to permeate the full thickness of the material
- For heterogeneous products, the nominated colours and patterns shall permeate the material to a depth of at least 0.7mm
- Products shall be able to be “wet and dry” cleaned (in turn they are waterproof and weldable)
- Materials shall be stain resistant, a requirement that can be met through the application of clear upper surface treatments.

3.6.20. Timber

- Timber shall be sustainably sourced, and certified by a recognised certification scheme including:
- FSC International
- PEFC-accredited certification schemes.
- Exposed timber edges shall be suitably finished to protect them from impact/damage
- Engineered wood products are to meet formaldehyde limits in line with the GBCA criteria and limits
- The use of recycled timber is encouraged.
- Timber species should be carefully coordinated with FF&E selections, joinery and other building elements.

3.6.21. Carpet

All specified carpet shall be:

- Meet the criteria set out in 3.6.2 Indoor Pollutants
- Environmentally sustainable products with supporting documentation validating compliance or Third party product certified such as;

Carpet Institute of Australia Ltd – Environmental Certification Scheme,

Ecospecifier – GreenTag GreenRate,

GECA certified product or

The Institute for Market Transformation to Sustainability – Sustainable Materials Rating Technology

- Loop pile carpet tiles are to be used.
- Heavy duty and hard-wearing modular carpet tiles with non-directional pattern are to be used.
- Heavy duty commercial grade to suit wear characteristics (48oz)
- Floor underlay materials shall be fire and smoke retardant and warranted with the specified carpet.
- Underlay shall be dual bond laid and classed for HC – Heavy commercial use, suitable for heavy foot and wheel traffic and castor chairs.
- Modular carpet tile should be used in general office and teaching spaces, and shall be neutral in colour and readily available. Feature colours or finishes in these areas are discouraged.
- Broadloom carpet floor finishes are not acceptable.
- Fixing and seam requirements to ensure warranty of product. At minimum all caret edges to be tipped with 60% latex and joined using hot melt seaming tape. Always installed in accordance with the manufacturers instruction.
- 5% spares shall be specified as a minimum.

3.6.22. Timber Floors

All specified timber floors are to comply with the following:

- Timber flooring shall not be selected for areas subject to in excess of 5000 persons per day.
- Refer to section 3.6.20 Timber for additional requirements

3.6.23. Entry Matting

Entry mats must meet the following requirements:

- External Brush off matting is to be specified for use in external areas.
- Where exposed to weather, mat recesses shall incorporate self- draining, unless located under shelter or immediately inside doorways
- External mats shall be at least to the width of the doorway and a minimum of 1.2 m in direction of travel
- Matting is specified as heavy duty recessed matting, or equivalent water and dirt trapping matting/tile
- Matting shall extend not less than 4 metres in the direction of travel where leading to carpeted surfaces
- Air lock entrances shall have entry matting laid to their entire enclosed area.
- Mat recesses shall be formed by brass or aluminium angles set into concrete.
- For fire isolated areas matting shall be fire resistant to comply with fire rating of area, alternatively mat recesses shall be external and adequately drained.
- To mitigate the risk of tripping, mats shall be recessed or have tapered edges.

3.6.24. Floor Tiles

Floor tiles are generally to be avoided, and are not acceptable in amenities or kitchen areas.

Where approved by RMIT Property Services, floor tiles must meet the following requirements:

- Required slip resistance for intended purpose
- Tiles suitable for high traffic commercial applications are to be specified; fully vitrified porcelain, or natural stone tiles are preferred.
- Tiled floors in wet area are to fall to waste with minimal possible tile cutting. Make level junctions with walls.
- Control joints are to be included where large floor areas are tiled
- Grout shall be proprietary polymer modified extra fine grout, and antimicrobial.
- Tiled floors are required to be sealed to prevent staining of tile and grout.

3.6.25. Fabrics

Fabrics are to have a Commercial Textile Association (CTA) approved performance rating of **Heavy Duty Commercial Use**, and the comply with the following criteria;

- Meet the criteria set out in 3.6.2 Indoor Pollutants
- Woven single colour and light colour fabrics are generally discouraged in all areas.
- In high use areas fabrics are to be impermeable, the use of woven fabrics is discouraged.
- Consultants shall specify environmentally sustainable products with supporting documentation validating compliance or third party product certified such as;
- Carpet Institute of Australia Ltd – Environmental Certification Scheme
- Ecospecifier – GreenTag GreenRate
- GECA certified product or
- The Institute for Market Transformation to Sustainability – Sustainable Materials Rating Technology

3.6.26. Table 1: Floor Coverings Guide

	Chemical/ corrosion/ slip resistant	Non-absorbent urine resistant	Standard seamless finish	Coving	Carpet tiles	Polished sealed concrete	Sealed concrete	Sealed concrete-Chemical Resistant	Grated Floor Waste
Teaching tutorial or lecture theatres	×	×	✓	×	✓	×	×	×	×
Meeting rooms and videoconference rooms	×	×	×	×	✓	×	×	×	×
Offices	×	×	×	×	✓	×	×	×	×
Corridors and foyers	×	×	✓	×	×	✓	×	×	×
Clinical / Science Labs	✓	×	×	✓	×	×	×	×	×
Gymnasiums	×	×	✓	×	×	×	×	×	×
Toilets	×	✓	×	✓	×	×	×	×	×
Change-rooms	×	✓	×	✓	×	×	×	×	✓
Cleaners facilities	×	×	✓	✓	×	✓	×	×	✓
Kitchen facilities	×	×	✓	✓	×	×	×	×	✓
Plant rooms	✓	×	×	×	×	×	×	✓	✓
Lift control rooms	✓	×	×	×	×	×	×	✓	×
Stairwells	×	×	✓	×	×	×	✓	×	×

	Chemical/ corrosion/ slip resistant	Non-absorbent urine resistant	Standard seamless finish	Coving	Carpet tiles	Polished sealed concrete	Sealed concrete	Sealed concrete-Chemical Resistant	Grated Floor Waste
Fire Hydrant and hose reel facilities	✓	×	×	×	✓	×	✓	×	×
Communications	×	×	✓	✓	×	×	×	×	×
Commercial tenancies	×	×	×	×	×	×	✓	×	✓

3.7. Ceilings

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.7.1.	Ceilings shall be designed to ensure safe access to all ceiling services and lighting from within the space. Special consideration shall be given to accessing services in stairwells, and workstation areas safely with minimal disruption to business as usual.
3.7.2.	Access to ceiling mounted equipment shall be provided through accessible ceiling tiles or hatches. Equipment located in trafficable ceiling spaces shall have stair access.
3.7.3.	Ceilings shall be highly durable, and easy to clean.
3.7.4.	All paint finishes should be flat acrylic and on a monolithic flat surface.
3.7.5.	5% spares shall be specified as a minimum.
3.7.6.	Ceiling heights shall generally comply with the figures provided in **Table 2** below.
3.7.7.	Ceiling fans shall comply with the following criteria: • The minimum height of ceiling fans, as measured to the underside of fan blades, is to be 2.4 metres from finished floor level. • Shall be located so as to not cause flicker from lighting • Ceiling fan On/off switch, speed control and direction of rotation shall be controlled from wall mounted switches. • Shall be located at a height to suit their performance capabilities ensuring that they are effective and clear of any other ceiling mounted elements.

Table 2: Minimum Ceiling Heights

Learning Areas	2.7
Amenities	2.4
Multi-Purpose Room	4.0

3.8. Windows and Glazing

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.8.1.	The design should avoid high level glazing; and where it is specified, the design shall allow for safe maintenance and cleaning access.
3.8.2.	Windows shall be operable, unless inappropriate due to environmental conditioning, and/ or security and/ or health and safety considerations.

3.8.3.	The operable portion of a window is to be adequate to promote natural ventilation.
3.8.4.	Design of operable windows shall eliminate any risk of climbing or falling.
3.8.5.	The location of operable windows above or adjacent to trafficable areas is to be avoided.
3.8.6.	Windows in high traffic and vandal-prone areas shall be impact resistant or otherwise protected.
3.8.7.	Fitted screens shall protect operable windows from the ingress of insects.
3.8.8.	Window design shall incorporate robust and reinforced commercial framing suites, hardware and finishes selected for durability and environmental considerations.
3.8.9.	Glazing shall be specified based on environmental and acoustic considerations.
3.8.10.	Enhanced solutions such as increased glass thickness, double glazing and tinting shall be incorporated to reduce noise, sun glare, and heat gain and loss as appropriate.
3.8.11.	Appropriate shading devices are to be utilised, if required, to minimise the nuisance impact of daylight glare and reduce thermal loads.
3.8.12.	Where specified, sashes shall be either sliding or double hung.
3.8.13.	All external windows shall incorporate glare control blinds unless approved by RMIT; refer to section 6.9 Window Furnishings
3.8.14.	Fall prevention for persons on the roof, such as safety grilles, shall be fitted to any skylights, except where skylights incorporate impact resistant material in their design.
3.8.15.	Where required, blinds are to be connected and controlled by the Building Management System (BMS).
3.8.16.	Maintenance and Access Windows shall be designed and located to facilitate ease of maintenance access and cleaning; • Where skylights, light shelves, atria or clerestories have been incorporated, adequate and appropriate maintenance plans and facilities are to be included • Fitted insect screens shall be accessible and removable for cleaning.

3.9. Stairways

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.9.1.	Finishes on stairs shall comply with: • Only homogenous flooring materials, such as vinyl and marmoleum. • Non- slip mechanically fixed aluminium nosings are to be provided as a minimum. • Rolled carpet to nosing is not to be specified. • Powder coating to nosing is not acceptable • Stair balustrades are to be stainless steel or other approved finish.
3.9.2.	The design is to encourage the use of stairs as the primary mode of vertical circulation, instead of the use of lifts.
3.9.3.	Skirtings shall be incorporated where tread surfaces are intended to be mopped, buffed or sealed.
3.9.4.	Floors and soffits that enclose stairs shall be treated with sound absorbing materials to reduce noise nuisance. Stair and stairway surfaces shall be finished with materials that minimise noise transference both within the stairway and to adjacent spaces.
3.9.5.	Where practical, the building design shall incorporate internal stairs that are visible to building occupants, located within 5 metres of the primary set of lifts or within 20 metres of a main entrance.

3.9.6.	Balustrade height is to be a minimum of 1050mm above finished floor level. The minimum height is to be increased to between 1150mm-1200mm above finished floor level where there is an increased risk of falls or other gravitational hazards, for example: • The area is likely to be subject to high foot traffic. • There is likely to be a high level of traffic below. • There is a high likelihood of risky behaviour. • Activities that increase risk are likely to occur in the area.
3.9.7.	Stairways shall include lighting at each landing with daylight and sensors and time controls.

3.10. **Lifts**

This section details requirements for the internal finishes and fittings for Lifts. This section should be read in conjunction with **Volume 7 Vertical Transport Systems** of this Standard.

3.10.1.	Finishes specification in lifts; • Painting is not acceptable in lift cars • Floors shall be standard commercial homogenous flooring such as vinyl, carpet is not permitted. • Floors are to be easily cleaned with no gaps to walls where dirt and dust can collect. • All wall linings shall be high impact resistant and stain resistant • Ceilings shall be removable and all lighting and services accessible from within the lift car.

3.11. **Doors General**

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.11.1.	Door widths are to be a minimum of 920mm with clear widths of no less than 850mm
3.11.2.	Cat and Kitten, 1 ½ leaf doors are to be avoided in teaching spaces. Large single doors, designed to accommodate peak pedestrian traffic loads are preferred.
3.11.3.	All doors to teaching and learning spaces are to have clear vision panels to allow visual connection and safe opening.
3.11.4.	Paint finishes to timber doors shall be gloss or satin finish
3.11.5.	Timber doors are to be of solid core construction, hollow core doors are not acceptable.
3.11.6.	Doors are to be sized to suit the maximum widths required for the purpose of the space. Consideration is to be given to peak demand times in teaching spaces.
3.11.7.	Doorways and openings are of dimensions that allow equipment to be removed or reinstalled. The method of changing/maintaining the largest item of plant is to be indicated.
3.11.8.	Doors shall be furnished with restrainers, door stops, door closers etc. to prevent impact damage to adjacent surfaces.
3.11.9.	Any door fixings to lightweight metal shall be provided with backing plates for support.
3.11.10.	Typically doors shall be designed with lever style handles.

3.11.11.	To prevent doors dropping and jamming they shall be fitted with a minimum of 3 No heavy duty stainless steel hinges per leaf.
3.11.12.	Oversize doors are to be detailed to include sufficient hinges and hardware to ensure ease of operation and durability is achieved.
3.11.13.	In areas prone to vandalism or high student usage, handles and mechanism shall be sufficiently robust to withstand vandalism, abuse and the effects of frequent use.
3.11.14.	Door frames are to be aluminium or steel and to be fitted with a double rebate to allow for future alterations.
3.11.15.	Door stops shall not be located in close proximity to the hinge. Where floor mounted door stops are likely to create a trip hazard when fixed in the normal location beneath the door handle, a door stay is to be used instead, fixed to the head of the door.
3.11.16.	Doors shall be located adjacent to walls to provide a definite door stop and thus avoid hinge stress damage due to over extension by the action of wind or students.
3.11.17.	Doors are to be robust and suitable for the intended purpose of the space. High traffic areas are to have automatic sliding doors.
3.11.18.	Doors shall have the equivalent acoustic and/or fire performance of the wall in which they are built.
3.11.19.	Highly customised doors and door frames are to be avoided.
3.11.20.	Double acting doors are to be detailed to prevent binding between the leaves. If not double acting, double doors shall have rebated stiles, or equivalent metal stop to inactive leaf.
3.11.21.	Access and security controls are to be integrated into doors and frames where required. Refer to **Volume 9 Security** of this Design Standard.

3.12. External Doors

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.12.1.	Doors shall be sufficiently recessed into foyers to protect from prevailing wind pressure and rain or shall be weather protected with canopies.
3.12.2.	Airlocks shall be sized to permit the safe closing of doors, allowing each set to close before the next is opened.
3.12.3.	Timber doors shall be solid core faced with painted waterproof 4mm, A-Bond ply and pre-primed solid top, bottom and edge strips.
3.12.4.	Aluminium doors shall be constructed: • From a commercial grade section and have a solid bottom panel • With pivot type hinges complete with floor springs and concealed head closers.
3.12.5.	Weatherproof seals shall be fitted to the bottoms and edges of all external doors and to the meeting stiles of double doors.
3.12.6.	Doorways shall be designed with no step at the threshold. Where at risk to weather ingress, weather seals and small aperture drainage grates shall be incorporated.
3.12.7.	The number of hinged external doors is to be minimised.
3.12.8.	External swing back of house doors to be metal clad to both sides with full perimeter channel fixed with countersunk steel screws. If door is to be unpainted must be stainless steel with stainless steel fixings.
3.12.9.	Power to automatic sliding doors at building entrance(s) shall be key switch operated.

3.12.10.	Where security access control systems are to be installed an approved electronic lock and mounting position is to be provided.
3.12.11.	Where applicable, power to automatic sliding doors is to be interfaced in a fail safe manner, to be activated in an open position in case of a fire alarm signal from the Fire Indicator Panel.
3.12.12.	Doors in main circulation areas and high traffic areas are to be automatic sliding doors.

3.13. Smoke and Fire Doors

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.13.1.	Fire doors shall incorporate a vision panel. • Vision panels to be a minimum of 600mmH x 100mmW and 1000mmAFFL.
3.13.2.	Smoke and fire doors are to comply with the requirements of **Volume 4 Fire Protection**
3.13.3.	External fire doors to be faced on both sides with Colorbond steel sheet, adhesive fixed with fabricated perimeter channel of the same material. Countersunk stainless steel screw fix through edge.

3.14. Other Internal Doors

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.14.1.	All two way doors shall include vision panels, glass doors shall be marked appropriately. • Vision panels to be a minimum of 600mmH x 100mmW and 1000mmAFFL.
3.14.2.	Doors in high impact areas, such as areas where trolleys are used, are to include kick plates to 1000mmH and be durable and easily cleaned. Colorbond steel is the preferred finish.
3.14.3.	High impact, laboratories and back of house doors shall have kick plates fit for the purpose. Stainless steel and vinyl kick plates are preferred.

3.15. Door Hardware and Locks

For detailed security specification read this section in conjunction with **Volume 9 Security.** The consultant shall comply with the following requirements for locks, and coordinate appropriated specifications to suit the intended purpose;

3.15.1.	A Lockwood construction keyed system compatible with the RMIT University master key system shall be specified to comply with **Volume 9 Security** criteria and the following; • Only Lockwood 1800/1900 series plate door furniture shall be used with a 90 Lever Square handle. The most common applications are: 1801/90SC – Exterior Handle with Cylinder Hole 1805/90SC – Exterior Handle Plain 1904/90SC – Interior Handle with Snib 1905/90SC – Interior Handle Plain
3.15.2.	All locks shall be keyed in accordance with an identified status six or TWIN master key system. A letter will be issued by RMIT to whom it may concern authorising the Project Architect and/or Contractor to liaise with RMIT University Locksmiths to order and install the cylinders to the required specification.
3.15.3.	The relevant electrical supply authority will provide special lock cylinders for high tension electrical substations where applicable.
3.15.4.	All external and internal fire hose/hose reel cabinets shall be fitted with D handles and roller catches only with 90 or 180 degrees hold-open arms and chains. Doors to cabinets are painted and sign written to comply with the latest relevant Australian Standard, in consultation with the RMIT Project Manager.
3.15.5.	All automatic door controls, control locks to lifts and roller grilles shall be Lockwood TWIN Keying System.
3.15.6.	When specifying 1904/90SC Snib handle, the snib bar shall be specified to be cut to the correct size so it is flush with the turn-snib.
3.15.7.	Correct strike plates and strike boxes shall be specified for all frames.
3.15.8.	Where possible, Directory and Notice Boards shall be keyed alike.
3.15.9.	All locks shall be keyed in accordance with the University's Master Key System. Refer to the University's Locksmith Supervisor for further information.
3.15.10.	Keyed cylinders for substations are available from the Supply Authority and are not to be keyed into the RMIT system.
3.15.11.	All door furniture shall be specified to have sealed finishes that will not corrode or tarnish.
3.15.12.	For all double doors, the inactive leaf is to be specified to be fitted with top and bottom flush bolts to the leading edge. Where door exceed 2100mmH extended flush bolts are to be specified.
3.15.13.	All fixing, and locking hardware for industrial doors are to be specified to be fitted to the inside of the door, where practicable.
3.15.14.	Roller shutter type doors are to be specified to be secured internally at both ends of the bottom rail with appropriate key systems.
3.15.15.	Where the building entry/exit doors, plant room doors, fire escape doors and other selected internal and external doors are to be provided with electric door strikes, metal mortar guard protection boxes are to be provided as a component of the door frames, with pre-drilled crop outs provided for future strike plates as part of the manufactured door frames, compatible to receive the electronic door latch Similarly, the doors are pre-prepared to receive the non-strike component of the door hardware.
3.15.16.	Dependent upon the final locking configuration and the hardware selected for access control, there may be a requirement for a cylinder and mortice deadlock for separate physical locking and additional hardware if required for an electronic access control system.
3.15.17.	Each copy of a key (including original keys) shall be stamped with a copy number.

3.15.18.	A secure key cabinet is to be provided and installed to suit the number of keys and copies provided. A minimum of three copies of each key are required.
3.15.19.	The hardware specification shall comply with the specifications in **Table** 3: Lock Characteristics.

Table 3: Lock Characteristics

Location	Lock Type	Characteristics
Academic Offices General Staff Offices Conference Rooms	3572 Series	Cylinder lock fitted to outside of door. Handles both sides. When locked by key, outside handle is inoperative, inside handle remains free to open doors.
Lecture Theatres Seminar Rooms Laboratories	3572 Series	Cylinder lock fitted to outside of door. Handles both sides. When locked by key, outside handle is inoperative, inside handle remains free to open doors.
Exit Doors	3572 Series	Opening Out.
Service Cupboards	3572 Series	Opening Out.
AV Cupboards	3572 Series	Opening Out.
Plant rooms, Main Electrical Switchboards	3572 Series	Opening Out.
Swing Doors	3572 Series	
Laboratories		Refer to Project Co-ordinator before preparing specification.
Cupboard Locks	693ASC Series	Refer to Project etc. (as above)
Fire Alarm/EWIS Panels	CL-003	Refer to Project etc. (as above)
Service Cupboards	CFS-PL	Refer to Project etc. (as above)

3.16. Signage and Room Numbering

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

3.16.1.	All necessary warning signs and Engineering Service Identification Signs are provided in potential risk situations and to identify specific engineering service equipment. Refer to **RMIT University Signage Manual**.
3.16.2.	Room numbering shall comply with the **RMIT Room Numbering System**
3.16.3.	Room/Spaces are to be numbered in a clockwise direction commencing at the major point of entry to a floor or area, working around the perimeter of the floor or area about the central corridor, from the perspective of a person walking around the corridor.

3.16.4.	Doors/ entranceways are to be numbered in the order that they appear along the corridor, irrespective of which side of the corridor they may appear.
3.16.5.	Subdivision of rooms: In the instance where there is a room or rooms accessed via a non circulation space (i.e. a room), the room number should take the next available whole number. Only in cases there are no more numbers left, or a room is then split into 2 e.g. room 1 would then become room 1A and 1B. Each service area, duct or access way (corridor, stair, lift etc.) is to be numbered so as to be repetitive vertically, i.e. a duct passing from bottom to top of the building will be given the same number on each floor.
3.16.6.	The room numbering is represented by the "room/space' number and type of usage, and is detailed in Section (iii) below.

3.17. Location/Designation of rooms/spaces - Internally

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with.

3.17.1.	The University's location designation (or room numbering) system is designed to permit each room to be given a number which is unique to that space and which permits its ready identification on any RMIT campus. Each space or room number will consist of from four (4) to eight (8) digits. (refer to RMIT Signage Manual). e.g.: 14-16-21 Computer Laboratory Thus typical spaces will be numbered with building number, level number and space number as follows:
3.17.2.	Building Number Digits**:** are allocated to RMIT buildings thus: Numbers 001 – 199 City Campus Numbers 200 – 249 Bundoora West Campus Numbers 250 – 299 Bundoora East Campus Number 401 Fishermans Bend Number 450 Point Cook Numbers 500 – 539 Brunswick Campus Number 551 Essendon Airport Numbers 600 -619 Hamilton Number 621 East Gippsland Numbers 800-899 Vietnam
3.17.3.	Level Number Digits**:** are allocated to each floor level, commencing with the lowest level in a building as level 1 and proceeding up the building. Buildings that are joined are considered as a single building for this purpose.

3.17.4.	Room/Space Digits: represent the "room/space" type or usage, thus: Buildings that are joined are considered as a single building for this purpose, except in the case of Buildings 56 & 57, where progressively the numbering is being replaced with one set of numbers per floor, rather than floor and building. • 001-199 Portfolio & Departmental rooms such as offices, Student Accommodation living spaces, laboratories, classrooms, lounge spaces, bedrooms, staff rooms, seminar rooms, store rooms etc. • 301–399 Horizontal and vertical ducts, risers, service shafts. • 401-499 Services rooms such as toilets, cleaners' rooms, rest rooms, change rooms, showers, bathrooms in residential apartments, PABX rooms, plant rooms, store rooms. • 201-299 Public circulation spaces such as lobbies, foyers, plazas, corridors, passages, stairways, lifts, escalators, etc.
3.17.5.	Designation: defines the type or usage of the room/space, such as: • Computer Laboratory; • PABX Room; • Electrical Switchboard; • Plant Room; etc.
3.17.6.	Lettering type and size**:** refer to RMIT signage manual
3.17.7.	Sign content: The sign will contain the following information in addition to building and level number: • Department Spaces/Offices: room number only unless directed otherwise. • All other rooms: room number and use or purpose. • Service rooms: room number and use or purpose • Duct spaces: room/space number only except items such as • Electrical Switchboard where use or purpose is also to be indicated.
3.17.8.	Each space is to be identified at the point or points of entry by the building number, floor level and room/space number. Where one "department space" is entered through another departmental space" off a corridor or room then the entry at the corridor will be numbered with building, level and space numbers followed in brackets, with the level and space number of the inner room, thus: e.g. 14-16-21 (21A-D) Computer Laboratory
3.17.9.	Residential Apartments: For Apartment Buildings the numbering of the spaces is much the same as for other university spaces with the following additional guidelines; Each floor level will dictate the first number of the unit, so units on level 5 of a building would all have 5 as the first number: 501, 502 etc. These are only to be used for signage purposes on the front door. For all other purposes the spaces will be recorded in accordance with the door location, and additional rooms within the unit are numbered in the a,b,c etc convention as per other university spaces. Therefore the second unit, a two bedroom unit with a lounge room, will have numbers 002, 002A, and 002B. Bathrooms are treated as service rooms, and are part of the 400 series, but have the suffix of the unit number for identification purposes. Therefore, the bathroom in unit 2 will be called 402. These spaces are to be numbered first before other service spaces on each floor to ensure conformity with the unit number.

3.18. Signage Methodology

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with.

3.18.1.	The Methodology of the proposed signage is to provide sufficient information at each stage of a student or visitor's 'way-finding' journey from the 'campus perimeter' through to 'destination arrival'.
3.18.2.	All Campuses: Campus Entries: At the main entrances, the Directory Information and Campus Map will give the student/visitor the general direction of the building that they wish to find. Directional Signs: Once in the Campus open space, signs will indicate the direction of buildings as yet out of sight. At each entrance point to a building there will be an external sign, identifying the Building Number, Building Name (where designated) and the major 'disciplines and activity areas' within that building. Building Directories: On entering the building there will be a Building Directory giving the location (Building, Level and room number) of the 'discipline or activity area' that the students/staff/visitors wish to find. Level Directories: On building levels other than the entry level, there will be Level Directories adjacent to stairs and/or lifts giving the level and room numbers of the 'disciplines or activity areas' on that level. Directions to toilets and similar amenities will also be given either on the Floor Directories or separately signposted as appropriate. Point of Arrival Confirmation: The entrance door to each room will be numbered and student/visitor access room will also be prominently named. Major Venues and Activity Areas will have distinctive labelling at point of arrival. DDA Signage: RMIT considers all areas accessible to disabled users unless otherwise directed by reference displayed on building entry signs.
3.18.3.	City Campus: Campus Entry: Each major entrance to the main City Campus block, bounded by La Trobe, Swanston, Franklin and Russell Streets, will display a strong 'branding statement' and will be given an alphabetical identification for ease of locating the entry and to simplify 'the journey to one's destination'. Heritage Entries: The historic Shield Signs (as made by students in the 1930s) in Bowen Street will be retained to assist the student to identify these buildings from a long distance.

3.18.4.	Door Signs and Room Numbers Unless otherwise requested, the Project Architect shall prepare a schedule of door signs and room numbers, in accordance with the RMIT Signage Manual.
3.18.5.	External Signage/Directory Boards A P.C. sum shall be included in each contract for the supply and erection of lettering to identify the particular building concerned & main Directory Boards. The location is to be agreed with the RMIT Project Manager during the documentation stages.
3.18.6.	Evacuation Signage Floor Plans identifying access points and assembly areas in A3 format are to be located at each access point, lobby areas or non-exit corridors as recommended by the Manager Fire Engineering. A provisional allowance should be included within the project cost or as directed by RMIT.
3.18.7.	Safety/Hazards Signage Safety & hazards signage is to be clearly documented and coordinated with the various occupiers of the building as required by People Services in association with the RMIT. There should be provision of a notice board for highlighting safety issues.

4. Acoustics and Vibration

4.1. General

Control of internal and external noise is required to ensure a suitable acoustic amenity within the University. The following guidelines and criteria must be adhered to in order to ensure suitable acoustics for relevant spaces.

4.1.1.	The acoustic design should provide suitable control of sound transfer between adjacent internal spaces and speech privacy
4.1.2.	Acoustic detailing around junctions including floors, ceilings, walls, and façades, and detailing around services penetrations should be sufficient to achieve the criteria
4.1.3.	Doors and glazing in enclosed spaces should be selected with an acoustic rating appropriate for the surrounding partition ratings and room use
4.1.4.	For spaces that constantly or regularly generate high noise levels, e.g. plant rooms, the acoustic ratings of the surrounding building elements (e.g. walls, floors, and doors) should be selected to achieve the ambient noise level criteria in adjacent spaces
4.1.5.	The acoustic design of walls shall also consider potential for impact noise transmission to noise sensitive areas due to transmission of impact activities and/or hydraulic pipe noise transmission, e.g. amenities adjacent to an office or exhibition space
4.1.6.	Consideration should be given to the effect of low noise levels on speech privacy when designing the facade and mechanical services systems. In locations where speech privacy is important, measures should be introduced to ensure suitable privacy is maintained where these conditions occur.
4.1.7.	Teaching areas will require room acoustic design that allows for speech to be intelligible (both amplified and unamplified). To facilitate this, suitable sound absorption and acoustic diffusion treatments should be used to control reverberation time and undesirable room acoustic anomalies.
4.1.8.	The performance of any operable walls must be selected based on their expected in-situ performance.
4.1.9.	Workplaces must be designed to meet the following standards: • Peak noise levels no greater than 140dB(C) ○ An equivalent continuous noise level not exceeding 85dB(A) over 8 hours of a workday

4.2. Noise Criteria

The following noise criteria must be used during the design process or apply in-situ as indicated.

4.2.1.	All noise emissions from RMIT buildings and property must be designed to meet all local mandatory requirements.
4.2.2.	Where relevant, the design must meet all the acoustic and noise requirements of the National Construction Code (NCC)
4.2.3.	Noise from all mechanical services should be free of tonal and spectral content and not exceed the ambient noise criteria when measured at a distance of 1.2m above floor level and 1.5m from any diffuser or plantroom wall. Continuous noise should be measured in the octave bands 63Hz to 4kHz. Steady state sound levels are to be measured in terms of the L_{Aeq} over a period of 60 seconds
4.2.4.	The ambient noise level criteria apply to the combined contribution from building services noise and external noise from sources
4.2.5.	Ambient noise levels from ambient sources such as traffic, mechanical services and other constant noise sources must comply with the criteria stated in Table 4. Lower noise levels than those stated in Table 4 are acceptable however they should not be detrimental to speech privacy
4.2.6.	Short-term noise in occupied spaces from occasional but regular sources (such as fluid noise from cisterns, waste and supply pipes, lift motor noise) shall not exceed a noise level 5 dB above the maximum level recommended in AS/NZS 2107-2000 for the particular area.
4.2.7.	Green star – if Green Star points are being sought, the design must take into account the latest acoustic requirements for targeting those Green Star points
4.2.8.	Where ambient noise levels are less than the minimum noise levels recommended by AS2107, consideration must be given to providing masking noise for spaces where speech privacy is critical.

Table 4: Recommended Noise Levels

Recommended design sound level L_{eq} dBA (30 seconds)	Typical Room Usage
30-35	Lecture theatres, conference rooms
35-40	Meeting rooms
40-45	flexible teaching/learning spaces, laboratories/workshops, offices, computer based learning spaces, student study areas/portals, art/design studios, clinical practice spaces, multi-purpose spaces
45-50	toilet and shower facilities , circulation spaces, lift lobbies, enclosed tea points and kitchens, store & cleaners rooms

Spaces not listed in the table must comply with the recommended design sound levels listed in the latest version of AS2107.

4.3. Speech Privacy & Sound Insulation

In order to facilitate a suitable speech privacy level in a space, appropriate sound insulation to adjacent spaces is required.

4.3.1.	Consideration should be given to the effect of low noise levels on speech privacy when designing the facade and mechanical services systems. In locations where speech privacy is important, measures should be introduced to ensure suitable privacy is maintained where these conditions occur.
4.3.2.	The Sound Level Difference (D_w) is the criterion for the sound insulation between spaces. D_w represents the sound reduction achieved in situ by the final construction (i.e. the partition including the flanking paths such as over the ceiling).
4.3.3.	The rating requirements for operable walls must be reviewed by an acoustic engineer.
4.3.4.	The sound insulation rating between spaces must comply with those stated in Table 5.

Table 5: Sound insulation criteria

		Recommended Room to Room Sound Level Difference, Dw*		
Class	Room	To adjacent enclosed spaces	To corridor through partition with glazing or door	Door sound insulation rating (R_w)
1	Art/design studios, laboratories/workshops with noisy machinery	50-55	40	Double door airlock
2	Lecture theatres	45	35	Double door airlock
3	Conference Room	45	35	32
4	Flexible teaching/learning spaces, clinical practice spaces, multi-purpose spaces, student study areas/portals, computer based learning spaces, offices, meeting Room, quiet Room/Pods, art/design studios, laboratories/workshops	40	30	30
5	Circulation spaces, reception Areas, tea points and kitchens,	35	30	25

		Recommended Room to Room Sound Level Difference, Dw*		
Class	Room	To adjacent enclosed spaces	To corridor through partition with glazing or door	Door sound insulation rating (R_w)
	staff Areas			
6	Toilet and shower facilities	40	-	30
	Plantroom	specialised advice required	specialised advice required	specialised advice required

1. Where rooms of two different categories abut the higher rating takes precedence.

2. Any walls dividing wet areas from any occupied room shall incorporate a double or staggered wall stud frame system. Pipes to the wet area should be fixed only to the studs that are supporting the plasterboard that is facing into the wet area.

3. In the case of Categories 1, 2 and 3 the ceiling system must not be of perforated or slotted construction and would typically be 13 mm plasterboard or a compressed acoustic tile having a thickness of at least 15 mm and a weight of 4kg/m2 or more.

4. If rooms are not included in this schedule, RMIT must be consulted to determine the rating required

5. Any perforated ceilings must not degrade the performance of the partition system

4.4. Reverberation control and room acoustics

Reverberation time should be minimised to control ambient noise levels and to provide appropriate speech intelligibility within the spaces.

4.4.1.	Suitable sound absorption and acoustic diffusion treatments should be used to control reverberation time and undesirable room acoustic anomalies
4.4.2.	The shape of enclosed spaces should reduce the presence of unwanted geometrical features that could cause room acoustic anomalies such as flutter echoes, late reflections and focusing

Table 6: Reverberation time criteria

Room	Recommended reverberation times (s)
Lecture theatres <100 seats	0.4 to 0.6
Lecture theatres >100 seats	Refer to curve 1 of AS2107
flexible teaching/learning spaces, clinical practice spaces, multi-purpose spaces, Quiet Room/Pods	0.4 to 0.6
student study areas/portals, computer based learning spaces, Materials Preparation – Machine Room, Staff Areas	0.6 to 1.0
art/design studios, laboratories/workshops	0.8 to 1.0
Offices, Meeting Room Conference Room, Reception Areas	0.6 to 0.8
Circulation spaces & Lobbies & Foyers, store & cleaners rooms, tea points and kitchens, toilet and shower facilities	-

Notes

1. If rooms are not included in this schedule, RMIT must be consulted to determine the rating required

2. Speech transmission index (STI); for Lecture theatres & flexible teaching/learning spaces a minimum STI of 0.7 must be achieved

4.5. Hearing augmentation

As a guide, it should be assumed that any space that includes audio reproduction systems must also have a hearing augmentation system installed.

4.5.1.	Hearing augmentation systems must be included in the design as required and described by the most current versions of the BCA, ASS1428.5 & AS60118-4

4.6. Vibration

Floor vibration can be generated by human activity such as people walking, mechanical equipment, or from external sources such as trains or road traffic. Floor vibration levels in any part of the building must comply with the requirements as detailed below

4.6.1.	Vibration isolation of mechanical plant and equipment is to be supplied and installed to limit vibration levels in the building to comply with recommended vibration levels as set out in the most current version of ISO 10137, “Bases for design of structures - Serviceability of buildings and walkways against vibrations”.
4.6.2.	Vibration from external sources such as trams, trains and vehicles must also be considered and must comply with most current version of ISO 10137
4.6.3.	Mechanical Services should be isolated from the structure in accordance with the most current version of ASHRAE HVAC Application Handbook

Fire services

4.6.4.	In accordance with AS 1668.1(1998), the noise level due to the operation of smoke control systems (including smoke spill fans and air pressurization fans) must not exceed 65dBA in occupied spaces or 5dBA above the ambient noise levels to a maximum level of 80dBA. Noise levels in fire-isolated exits must not exceed 80dBA

Rain noise

4.6.5.	For category 4 spaces (or better), rain noise should not exceed L10 40dBA, based on a rainfall rate of 30mm/hour.

4.7. Zoning

4.7.1.	Doors or airlocks are to be provided to separate areas that are conditioned from areas that are not conditioned.
4.7.2.	External doorways are to be located and designed to minimise indoor wind gusts and draughts.

4.8. Wind

Changes to the built environment can affect the local micro climate, changing or creating wind patterns that are detrimental to the public realm. Additionally the selection on material may be impacted by environmental conditions.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

4.8.1.	Consideration should be given to local micro climate including prevailing winds
4.8.2.	Airlocks are to be included at all building entrances; revolving doors are generally not an acceptable alternative.
4.8.3.	The design avoids creating adverse weather conditions for neighbouring areas e.g. wind tunnels.
4.8.4.	The design shall consider the orientation and protection of entrances to avoid or buffer from prevailing winds.
4.8.5.	The specification of materials exposed to wind shall give consideration to the effect of wind on the material, such as structural integrity and potential for whistling in wind conditions.
4.8.6.	Integrated building elements that offer multiple benefits are favoured over one-off technologies.

5. Facility Considerations

To ensure that RMIT avoid overly complicated or expensive maintenance obligations designs shall consider how easily assets and systems servicing the finished project space can be accessed and the levels of flexibility offered in the configuration of those assets and systems.

The following sections shall be read in conjunction with the **RMIT Space Allocation and Accommodation Policy** and with the following sections of this Design Standard;

- **3.1 General**
- **6.0 Furniture and Fittings**
- **5.18 Waste Management**

5.1. General

5.1.1.	The design shall ensure that safe and compliant physical access is provided to building services (e.g. duct work, air handling units, fan-coil units, controllers etc.)
5.1.2.	The design provides for the removal/ installation of plant and equipment where necessary with minimal disruption to the building structure, fabric and day-to-day operations
5.1.3.	Plant room access is to be generally from outside of the building.
5.1.4.	Where service cupboard or plant room access it internal, access through work and storage areas to be avoided wherever possible.
5.1.5.	Indication of designated routes for service personnel to access each plant item is to be provided. The designated routes and maintenance methods will allow servicing, access and replacement of parts without undue danger, difficulty or interruption to building activities.
5.1.6.	Adequate and appropriate storage facilities for maintenance and cleaning supplies, tools and equipment are to be provided.
5.1.7.	Dedicated reception desks are generally not appropriate at RMIT, IP phones shall be located within entry spaces where required by stakeholders.
5.1.8.	Lighting • Adequate and appropriate lighting for maintenance tasks is to be provided. • Light fittings are mounted at heights below 2700 mm AFFL. Where this is not possible specific means of safe access to change lamps is provided, e.g. step ladders with a platform at the required working level.
5.1.9.	Consolidation of Utility Spaces The design shall not duplicate services or amenities already provided in adjacent areas. A review of existing amenity is to be carried out and the requirements for the following approved by RMIT University Property Services; • Print rooms, • Kitchens and tea points • Toilet facilities • Storage rooms • Meeting rooms

5.2. Circulation Spaces

For material and finishes specification criteria refer to **3.6 Materials and Finishes** (LINK) of this Design Standard.

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

5.2.1.	Corridors are to be a minimum of 2100mm wide.
5.2.2.	Reliance on corridor shall be minimised and where unavoidable designs shall avoid blind spots and unobserved areas.
5.2.3.	Durable finishes or alternative suitable protection shall be specified to low level wall finishes to protect them from damage.
5.2.4.	The location of doors in corridors shall be coordinated to provide clear and logical circulation paths for high traffic requirements.
5.2.5.	Adequate waste and recycling bins are to be provided and located centrally in circulation spaces. **Refer to 5.18 Waste Management** for detailed specifications on the provision of bins

5.3. Toilet and Shower Facilities

This section shall be read in conjunction with the following sections of the standard;

- **3.6 Materials and Finishes**
- **6.4 Fixtures and Fittings**

All toilet and shower facilities shall comply with the following criteria;

5.3.1.	When increasing the population of a building the design team shall ensure that the overall building provides sufficient toilet facilities and does not adversely impact on adjacent building amenities.
5.3.2.	For the purposes of toilet and shower number calculations, an equal split of male and female building occupants is to be assumed.
5.3.3.	Separate male and female blocks are preferred.
5.3.4.	The design shall avoid direct sight lines into the facilities when entry doors are open.
5.3.5.	RMIT's Security department should be consulted on whether needle bins are to be provided.
5.3.6.	A wash down point to all toilet and shower areas is to be provided, with a vandal resistant tap near floor waste and at 450mm AFFL.
5.3.7.	The design shall incorporate an airlock or exhaust entrance solution for each toilet facility
5.3.8.	Walls on which hand dryers are fixed are to be finished with an impermeable lining to prevent damage to plasterboard linings.
5.3.9.	Provide properly copper-backed and ventilated wall mounted flush mirrors screw fixed to the walls above each vanity basin.
5.3.10.	In multi-level buildings, a DDA compliant toilet facility is to be provided on each level.

5.3.11.	Shower Cubicles • The minimum shower cubicle size is 1800 x 900mm. • Individual shower cubicles are to be provided with seating and clothes hooks (minimum of 2). • The shower design solution shall be such that water from showers does not discharge into adjacent showers. • Heavy-duty wall mounted clothes and towel hooks are to be provided above or in close proximity to bench seating. • Design shower cubicles to maintain distinct wet and dry areas, with a partition to the areas. No curtains. • Wet areas should include a shelf to place toiletries.
5.3.12.	Toilet Cubicles • Minimum toilet cubicle size is 1550mmL x 920mmW. • Female and accessible toilets shall include space for free standing sanitary disposal bins, 350mmL x 250mmW
5.3.13.	Dispensers • The typical dimensions and specifications of all dispensers shall be confirmed with RMIT to ensure that current and relevant items are coordinated into the design.

5.4. Tea Points and Kitchens

This section shall be read in conjunction with the following sections of the standard;

- **3.6 Materials and Finishes**
- **6.4 Fixtures and Fittings**

A Tea Point or kitchen is considered a utility space at RMIT and shall be designed and located to reflect a level of finish appropriate to such a space. All tea points and kitchens shall comply with the following criteria;

5.4.1.	The allocation of Tea points and Kitchens are to be approved by RMIT University Property Services. Duplication of existing adjacent amenity is not acceptable.
5.4.2.	Tea Points and Kitchens General • Standard laminate finishes are to be used. High grade finishes are not acceptable. • Solid timber and timber veneer products are not acceptable. • Stainless steel bench top and integrated sinks are not acceptable • Fully welded commercial grade vinyl flooring with integrated coved skirting are to be specified • Splashbacks are to be colour backed glass or ceramic tiles • Bench top junctions with walls are to be fully sealed with anti-microbial caulk. • Bins are to be provided to all kitchens and tea points and should be located in a visible location where they are not a trip hazard. • Joinery integrated waste bins are not acceptable. • Refer to section 5.18 Waste Management for detailed information on waste policy compliance with this policy is mandatory.

5.4.3.	Tea Points The provision for tea points shall include; • No above bench power points are to be provided in tea points. • Minimum cutlery and crockery storage to be included • Under bench cupboards to house BWU and cleaning supplies. • Single sink with drainer • Boiling & Chilled Water Unit • Hot and cold water • Under bench/bar refrigerator • Tea towel rail or hook • Waste and recycling bins
5.4.4.	Kitchens Where a kitchen is required its size shall reflect the peak demand load of occupants and is to be determined through stakeholder consultation. The minimum provision for a kitchen; • Double sink with drainer • Tea towel rail • Dishwasher specified to suit the peak load of kitchen • Full height refrigerator with freezer section if required. • Boiling & Chilled Water Unit • Hot and Cold Water • Microwave • Above bench power points for sandwich press, and toaster. Sandwich press and toaster not to be included in specifications. • Cupboard storage for crockery and consumables with adjustable shelving • One unit of drawers for cutlery etc. Minimum width 450mm. • Staff kitchens to include one Pin board to accommodate regulatory and staff information. • Waste and recycling bins

5.5. Cleaners' Rooms

A cleaner's room is a utility space at RMIT and shall be designed and located to reflect a level of finish appropriate to such a space. All cleaner's rooms shall comply with the following criteria;

5.5.1.	At least one cleaners room is to be provided per level. The consultant is to confirm that a cleaner's room exists on the floor and ensure no duplication of existing utility spaces.
5.5.2.	The nominal size of the ground level cleaners room is 3m x 3m,
5.5.3.	Cleaners rooms are to be located adjacent to other wet areas.
5.5.4.	Use inward opening lockable swing door where space allows.
5.5.5.	A stainless steel hopper sink with grate and hot and cold water is to be provided in each cleaners room.
5.5.6.	A power point is to be provided in each cleaners room.
5.5.7.	Impervious splashbacks are to be provided to 600mm above sink in each cleaners room.
5.5.8.	Cupboard space is to be provided including 2 water resistant shelves each 1000mm long in each cleaners room.

5.5.9.	Two coat hooks are to be provided in each cleaners room.
5.5.10.	A 1m2 notice board is to be provided in each cleaners room.

5.6. Lecture Theatres

Lecture theatres shall be designed to facilitate comfortable and compliant access and egress. In addition to BCA compliance in aisle widths, distance to aisles, egress, seating row spacing and disabled persons access, designers should be mindful of other considerations including the following:

5.6.1.	Lecture theatres are to be free of columns or other visual obstructions.
5.6.2.	For large scale new build lecture theatres under floor air distribution systems are preferred.
5.6.3.	Screened natural light shall be provided where possible. Automated curtains or blinds may be utilised to prevent glare.
5.6.4.	Circulation spaces to be sized to allow for easy 'departure' of classes whilst another group is waiting compliant with the following criteria; • Large lecture theatres shall have adjacent 'break-out' and waiting space. • Waiting or break-out spaces are to be serviced by adequate toilet and washroom facilities. • Consideration is to be given to the utilisation of break-out areas for exhibition and events. AV displays are preferential in line with **Volume 11 Audio Visual.**
5.6.5.	Sufficient clear door widths are provided to allow for a maximum clearance time of 2.5 minutes for quick and efficient changeover between lectures.
5.6.6.	Door/s are to be provided at or near the rear of the theatre for the entry of latecomers to minimise disruption to presenters.
5.6.7.	Visual connection is to be provided from adjacent circulation space into lecture theatre
5.6.8.	Whilst the primary use of University teaching spaces is the delivery of the academic program, consideration shall be given to ease of access and use by the wider community, especially in the case of larger projects; • Signage, access, amenities and other services shall also be planned with public use in mind.
5.6.9.	The front row of seats shall be at the same floor level as entry doors for disabled person's access.
5.6.10.	Lecterns and other fixtures shall not impede wheelchair user access.
5.6.11.	Size shall be determined by the **National Construction Code** for seating numbers.
5.6.12.	The setback for tiered seats from white boards to projection screens shall be designed to suit the AV requirements.
5.6.13.	Writing surface/ laptop support shall be provided, including power points. Power points to be easily accessible and highly durable.
5.6.14.	Glare from light sources or adjacent light colour walls onto screens shall be avoided.
5.6.15.	Optical calculations should be undertaken by the Audio Visual consultant to ensure that viewing angles and distances are acceptable.
5.6.16.	The lecture theatre floor shall be tiered or raked to provide a clear view of the display areas and the presenter from every seat.
5.6.17.	In preference to sloping of the theatre floor, raking shall be provided by terracing, to maintain flexibility.
5.6.18.	Aggressive tiering (which can create projection and screen viewing problems) is not to be used except for very small theatres or where existing conditions must be retained.

5.6.19.	Controlled lighting, PA and AV are to be provided, refer to **Volume 3 Electrical Systems** and **Volume 11 Audio Visual.**of this standard. • AV systems shall include the capacity to connect and collaborate with other RMIT facilities and industry, both locally and globally.
5.6.20.	AV racking is to be concealed within an appropriately ventilated lockable cupboard located so that access does not disturb teaching or events.
5.6.21.	An RMIT standard presentation bench is to be provided with integrated AV and lighting controls. Refer to detailed drawings for presentation bench details, design is to ensure that all services requirements are included to the fixed joinery.

5.7. Flexible Teaching/Learning Spaces

These are level floored multi-functional teaching spaces. Requirements for these teaching spaces are as follows;

5.7.1.	Circulation spaces to be sized to allow for easy 'departure' of classes whilst another group is waiting, an 'ante' space shall be provided to accommodate the peak pedestrian traffic load.
5.7.2.	Unless otherwise directed by RMIT, spaces are to accommodate groups of 6 students working together.
5.7.3.	The design shall include the provision of natural light to all teaching and learning spaces.
5.7.4.	The consultant is to provide diagrams demonstrating that a variety of room configurations are achievable, including: • AV presentation • Conference • Small group project work • Group work with perimeter access to data connections • Tablet arm chair group work
5.7.5.	Controlled lighting, PA and AV are to be provided, refer to the **Volume 3 Electrical Systems** of this standard.
5.7.6.	An RMIT standard teachers console is to be provided with integrated AV and lighting controls. Refer **to detailed drawings for teachers console** details, and the **Volume 11 Audio Visual.**of this Design Standard.
5.7.7.	AV is to be provided to meet the brief requirements and **Volume 11 Audio Visual.**
5.7.8.	Adequate provision for staff circulation to each work point is to be provided
5.7.9.	Whiteboards or writable surfaces are to be provided to several walls, pin boards are to be provided to meet specific stakeholder requirements. Writable surfaces should be installed in landscape orientation.
5.7.10.	Refer to section 6 Furniture and Fittings for detailed information on furniture requirements.
5.7.11.	Adequate power and data for student laptop connection is to be provided

5.8. Computer Based learning Spaces

These are level floored spaces for computer based teaching. Requirements for these teaching spaces are as follows:

5.8.1.	Circulation space between bench tops shall be no less than 1800mm.
5.8.2.	A dedicated printer may be required to be included in the design, refer to section **5.15 Offices.**

5.8.3.	RMIT University current Workspace Guidelines and the Space Allocation and Accommodation Policy shall be provided as required to the design team by RMIT University Property Services Requirements for these spaces are as follows.
5.8.4.	The design of workplace areas shall allow for flexibility to rearrange of furniture in the future.
5.8.5.	Provision shall be made for compactus zones in general office areas and other areas where nominated in brief.
5.8.6.	Centralised waste management points are to be provided in office spaces, refer to section 5.18 Waste Management as well as the following criteria; • Confirm requirements for confidential document bins with users and space provided where required. Confidential document bins are arranged by school or department independently.
5.8.7.	Printer Areas / Spaces for printer policy.
5.8.8.	Controlled lighting, PA and AV are to be provided, refer to the **Volume 3 Electrical Systems** of this standard.
5.8.9.	An RMIT standard teachers console is to be provided with integrated AV and lighting controls. Refer to detailed drawings for teachers console details, and the **Volume 11 Audio Visual** of this standard. • Presenter requirements will vary from case-to-case and shall be coordinated with users.
5.8.10.	AV is to be provided to meet the brief requirements and **Volume 11 Audio Visual.**
5.8.11.	Adequate provision for staff circulation to each work point is to be provided.
5.8.12.	Refer to 5.18 Waste Management for detailed specifications on the provision of bins

5.9. Student Study Areas/Portals

These spaces are for student study and are to be designed to support a range of study settings. Requirements for these spaces are as follows:

5.9.1.	These spaces shall be designed for high use, and to support collaborative study relevant to the stakeholder requirements.
5.9.2.	Spaces shall be designed to support groups of 6 as a standard, with provision for larger groups of 12 to 15 to meet brief requirements.
5.9.3.	Seating and tables are generally to be fixed in place and designed for students to comfortably use for medium to long term study. Seats or banquettes without backs are discouraged.
5.9.4.	Seating shall be designed with an adjacent work surface for use of notebooks, laptops and other devices.
5.9.5.	Lounge style seating is to be minimal, where used 650mm high tables are to be provided to support study.
5.9.6.	A mix of bench or standing height tables (900mm high) with ergonomic stools and standard tables (720mm high) with seating shall be provided.
5.9.7.	Power and USB charging access shall be visible and easily accessible in all student areas, and be mounted for ergonomic access, i.e. above bench height. • In-desk power and data boxes shall be specified for high use, and of durable construction. Concealed or flip-up units are to be avoided.
5.9.8.	AV is to be provided to meet the brief requirements and **Volume 11 Audio Visual.**
5.9.9.	Bins are to be provided to all public spaces. Refer to 5.18 Waste Management for detailed specifications on the provision of bins.

5.10. Art/Design Studio

These spaces are non-teaching multipurpose flat floor spaces designed to support the varying needs of RMIT. The requirements for these spaces are as follows;

5.10.1.	These spaces are to be designed for high use, and material selection to be robust and extra heavy duty.
5.10.2.	Wet areas are to be provided to meet stakeholder requirements
5.10.3.	Access to high quality natural light is to be provided.
5.10.4.	Spaces are to accommodate groups of 6 students working together.
5.10.5.	Controlled lighting, PA and AV are to be provided, refer to the **Volume 3 Electrical Systems** of this Design Standard.
5.10.6.	An RMIT standard lectern is to be provided with integrated AV and lighting controls. Refer to **APPENDIX 2** (LINK)for teachers console details, and the **Volume 11 Audio Visual** of this Design Standard.
5.10.7.	AV is to be provided to meet the brief requirements and **Volume 11 Audio Visual.**

5.11. Clinical Practice Spaces

These spaces are clinical practice based consultation spaces and shall be designed to be as flexible as possible to cater to a variety of clinic practice applications. RMIT. The requirements for these spaces are as follows;

5.11.1.	A level floor is to be provided
5.11.2.	Be located and designed to ensure appropriate level of privacy both acoustic and visual.
5.11.3.	Spaces are to accommodate a consultation bed, privacy curtain and hand washing facilities.
5.11.4.	Controlled lighting, PA and AV are to be provided, refer to the **Volume 3 Electrical Systems** of this Design Standard.

5.12. Laboratories/Workshops

The needs of each laboratory are varied and can change rapidly. Laboratories shall be designed to be as flexible as possible to cater for change. Requirements for these teaching spaces are as follows:

5.12.1.	Laboratories shall be planned using a modular gridded approach and relocatable lab benches where possible for future flexibility.
5.12.2.	All individual laboratories to have a shut off valves per service which is easily accessible to each laboratory to enable local isolation
5.12.3.	Locate hydraulics points on the perimeter where possible to avoid future obstacles
5.12.4.	Floor wastes are to be avoided unless absolutely required. If they are required they are to be fitted with priming devices to mitigate bacterial growth.
5.12.5.	Provide an emergency stop button in a visible location close to the laboratory exit.
5.12.6.	Light fittings to be flush with ceiling.
5.12.7.	Reticulate services such as power, electricity and gas from above
5.12.8.	Provide sensors to lights and any standalone AC units.
5.12.9.	Safety in Laboratories • Safety shower(s) are to be installed where chemical, corrosive or flammable substances are used or handled • These devices, and their actuating mechanisms, shall be located so that the approach to them is unobstructed and clearly visible. • Safety showers shall be alarmed to Security for emergency response.

5.12.10.	Emergency eye-wash stations Permanently fixed aerated Emergency Eye-Wash Stations, which can be foot operated without using hands are to be specified.
5.12.11.	Provision shall be made to drain or restrain any excess water from Emergency Eye-Wash Stations.
5.12.12.	Laboratory Safety Stations Laboratory Safety Stations are provided in addition to the safety equipment held in the laboratory. These are located in an area at the entry of each lab or lab complex. The Stations shall contain where appropriate to the laboratory: • Safety glasses and face shields. • Safety helmet. • Disposable clothing. • Fire extinguishers (suitable for electrical and chemical fires). • Fire blanket manufactured in accordance with AS3504. • Absorbent material for chemical spills. • Protective glove e.g. heat resistant, chemical resistant. • Torch of appropriate type. A flameproof type is required where flammable vapours are released. • Hearing protection. • Properly maintained self-contained breathing apparatus, where appropriate.
5.12.13.	To prevent cross contamination of equipment, dispensing/preparation and counting areas shall be separated.
5.12.14.	Disposal of gaseous waste, either through fume hoods, stacks or general building ventilation shall be arranged such that any exhaust does not re-enter the emitting building or other nearby buildings.
5.12.15.	An adequate supply of sinks and running water shall be provided in radioisotope laboratories so that non-radioactive liquid waste can be disposed of via the normal drainage system.
5.12.16.	For facilities with radiation sources (e.g. x-ray unit, sealed irradiation units etc.): • Radiation sources shall be carefully located with respect to occupied areas. Consideration shall be given to possible radiation beams or scatter through roof, floor and walls • Suitable shielding shall be designed for to ensure safe working conditions in adjacent locations • The design shall be certified by a radiation expert. • The requirements of clause 5.13.4 shall apply.
5.12.17.	Floor finishes are to be coved typically to avoid gaps for bacterial growth. Floor materials must have a seamless joint
5.12.18.	Provide removable benches where possible for flexibility. Where fixed benches are required ensure that there are no crevices that promote bacterial growth, all junctions to adjacent materials to be sealed
5.12.19.	Benchtops are to be durable, impermeable to liquids, easily cleaned and suitable for chemicals depending on the laboratory type.
5.12.20.	All wet laboratories to have moisture resistant partitions to a minimum height of 1200mm
5.12.21.	Ceiling tiles to be anti-microbial

5.12.22.	Bins are to be provided to all office spaces refer to section **5.18 Waste Management** as well as the following criteria; • A specific waste management strategy to be developed for all laboratory spaces and approved by RMIT.
5.12.23.	AV is to be provided to meet the brief requirements and **Volume 11 Audio Visual.**

5.13. Chemical Stores

The needs of chemical stores are varied and shall be designed to the requirements of the intended use. Requirements for these teaching spaces are as follows:

5.13.1.	The **RMIT Health and Safety Branch** shall be consulted during the preparatory planning stages.
5.13.2.	Flammable Liquid Stores: • An appropriate automatic fire extinguishing flood system in accordance with current practice e.g. carbon dioxide system, shall be provided.
5.13.3.	Gas Cylinder Storage • Gas cylinders shall be stored in a loading bay with at least one side fully exposed open to the atmosphere, with the necessary segregation of particular gases • Gas cylinders shall be appropriately secured to prevent falling. • The risk of gas cylinder damage from vehicular collision shall be mitigated. • Gas cylinders shall be protected from sunlight. • Gas cylinders which are connected to consuming apparatus shall be located outside the building. • “Just in time” delivery and manifolds of cylinders in the storage area shall be investigated during the design process.
5.13.4.	Storage and use of Radioactive Substances • Design considerations for radioactive substances shall be confirmed with the University Radiation Officer, Health and Safety Branch and the RMIT Project Manager. • Any system capable of emitting ionizing radiation or radioactive materials shall not be used without the specific written permission from the **RMIT Health and Safety Branch** • Where highly radioactive sources are to be used, the store shall be included in the base building design. • All facilities containing radioactive sources shall be clearly identified.

5.14. Multi-Purpose Spaces

These spaces are non-teaching multipurpose flat floor spaces designed to support the varying needs of RMIT. The requirements for these spaces are as follows;

5.14.1.	A level floor is to be provided
5.14.2.	Seminar rooms are to be free of columns or other visual obstructions.
5.14.3.	Spaces are to accommodate groups of 6 students working together.
5.14.4.	Controlled lighting, PA and AV are to be provided, refer to the **Volume 3 Electrical Systems** of this Design Standard.

5.14.5.	An RMIT standard lectern is to be provided with integrated AV and lighting controls. Refer to detailed drawings teachers console details, and the **Volume 11 Audio Visual.** of this Design Standard.
5.14.6.	AV is to be provided to meet the brief requirements and **Volume 11 Audio Visual.**

5.15. Offices

RMIT University current Workspace Guidelines and the Space Allocation and Accommodation Policy shall be provided as required to the design team by RMIT University Property Services Requirements for these spaces are as follows:

5.15.1.	The design of workplace areas shall allow for flexibility to rearrange of furniture in the future.
5.15.2.	Provision shall be made for compactus zones in general office areas and other areas where nominated in brief.
5.15.3.	Centralised waste management points are to be provided in office spaces, refer to section **5.18 Waste Management** as well as the following criteria; • Confirm requirements for confidential document bins with users and space provided where required. Confidential document bins are arranged by school or department independently.

5.16. Printer Area/ Spaces

A Printer Area/Space is considered a utility space at RMIT and shall be designed and located to reflect a level of finish appropriate to such a space. Requirements for these spaces are as follows:

5.16.1.	Physical clearance for devices located in walkways should exceed 2 metres
5.16.2.	Clearance around devices shall be in line with manufacturers recommendations.
5.16.3.	No staff member should have to walk more than 50 metres to a device.
5.16.4.	LAN/Data socket connectivity should be within 1.5m of device location.
5.16.5.	Requirements for increased air changes shall be coordinated with service engineers and included where required.
5.16.6.	A working power point shall be provided within 1.5m of device location. No extension cords are permitted.
5.16.7.	A minimum 1 metre long layout surface shall be provided adjacent printer with under bench storage for consumables such as paper.
5.16.8.	Spare printer toner shall be provided within print areas. Stationary supplies are not stored in print areas.
5.16.9.	Floor standing multi-function devices are preferred, desktop devices are not supported. Personal devices are not acceptable.
5.16.10.	Printer specifications, locations and quantities are to be coordinated with stakeholders and approved by **Strategic Sourcing and Procurement (SS&P)**
5.16.11.	Bins are to be provided to all print areas. Confirm requirements for confidential document bins with users and include where required. Refer to section **5.18 Waste Management**.
5.16.12.	Space shall be allocated for toner recycling collection boxes
5.16.13.	A pin board is required within the print area, minimum A3 size.

5.17. Plant Areas and Lift Control Rooms

Requirements for these spaces are as follows:

5.17.1. General

- Plant rooms and enclosures shall be integrated aesthetically into the building design.
- Plant spaces shall not be accessed through learning areas.
- Plant room layouts are to allow for future expanded plant capacity.
- Plant rooms shall be located, where possible, above ground level.
- Where plant rooms are not located above ground level, or are at risk of flooding, a sump and pump system shall be installed, alarmed to the BAS.

5.17.2. Weather and Vandal Protection

- Adequate and appropriate protection shall be provided to mechanical and electrical equipment from the weather, tampering and mechanical damage by plant rooms and similar enclosures.
- Mechanical switch boards on roof areas shall be enclosed within plant rooms so they are not open to the elements.

5.17.3. Floors

- Plant room floors shall be graded to drain to 80mm diameter minimum floor outlets.
- Plant room floors shall be sealed and painted with epoxy paint including 100mm coved upturns to walls, to locally contain spillages and flooding.
- All floor mounted equipment shall be built on full concrete plinths.
- Bunded areas are provided to locally contain all leakage and spillage from tanks, equipment etc.

5.17.4. Services

- Power points for service and maintenance use shall be installed in all plant rooms and plant areas.
- A water tap shall be provided to plant rooms and plant areas.
- Chemical store cupboards shall be provided in plant areas.

5.17.5. Lighting

- Paths of travel to roof and plant areas shall be provided with lighting for all hours use.
- Plant room lighting shall be controlled with movement detector sensors.

5.17.6. Access and Maintenance

Safe and appropriate access shall be provided to all roof mounted plant and equipment and to areas requiring ongoing cleaning/maintenance via proprietary walkway systems;

- Access to plant rooms and service areas shall be via swipe card only.
- All external proprietary walkway systems shall be sized appropriate for the maintenance tasks to be undertaken and be constructed in galvanised steel, non- slip self- draining and earthed.
- Plant shall not be located in ceiling spaces or in confined spaces.
- Stairway access with adequate door clearance shall be provided to upper level plant enclosures.
- Access into internal corridors from plant rooms shall be security controlled.
- No roof access hatches are permitted
- Plant rooms are to be externally accessible and a direct point of vehicular access or service is to be provided.

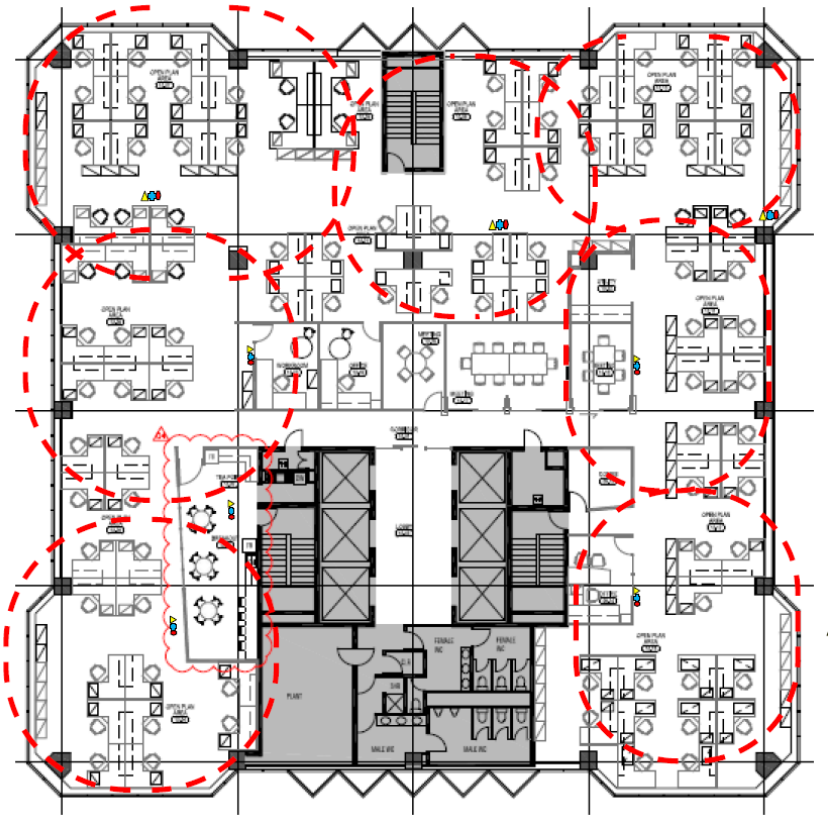
5.18. Waste Management

RMIT require specific design and specification for waste management to comply with their waste management contracts. All waste collection shall be designed to comply with the following criteria:

5.18.1.	Provision shall be made for the sorting, segregation, compaction, storage and collection of waste and recyclable materials.
5.18.2.	Waste and recycling requirements should be developed as part of a waste management plan, in partnership with Facilities Services (Cleaning / Sustainability) and the RMIT cleaning contractor.
5.18.3.	Paths of travel for the movement of bins, including goods lift access, as well as a clear collection points shall be established as part of the waste management plan.
5.18.4.	Three-phase power shall be supplied for compaction / bailer technology.
5.18.5.	Suitable visual screening shall be provided around the waste disposal facility.
5.18.6.	Adequate space for large vehicles to enter and manoeuvre shall be provided.
5.18.7.	The pavement design shall be adequate to support large vehicles and to withstand 'tyre scrubbing' forces arising from vehicle manoeuvring.
5.18.8.	Bin wash areas should be included, along with a large cleaner's cupboard with storage, sink and power points.
5.18.9.	Bin types specified for internal and external spaces shall be as specified in RMIT's standard bin specifications as shown in **Table 7**

Table 7: Standard Bin Specifications

Office / Study Areas (No desk bins permitted)	
Three Bin System General waste (red lid), Mixed recycling (yellow lid), Paper Recycling (blue lid).	
Supplier Specification	Design
Source Separation Systems - MULTISORT SYSTEMS • MULTISORT 60L BASE DARK GREY (MS-60L-DGRY) • MULTISORT LGE LID LANDFILL (MS-LGE-LANR) • MULTISORT LGE LID RECYCLE YELLOW (MS-LGE-RECY) • MULTISORT LGE LID PAPER & CARDBOARD - BLUE (MS-LGE-PCSB)	
Contact	
Source Separation Systems Phone - 02 4940 4648 www.sourceseparationsystems.com.au	
Multi-sort quantities and space allocation A set of three 60L bins (general, mixed and paper) should serve 20-30 desks on an open floor plan, depending on the space layout. Example floor plan layout:	



Kitchenettes	
Two Bin System General waste (red lid), Mixed recycling (yellow lid)	
Supplier Specification	Design
Source Separation Systems - MULTISORT SYSTEMS • MULTISORT 40L BASE DARK GREY (MS-40-DGRY) • MULTISORT 40L LID LANDFILL (MS-1040-LANR) • MULTISORT 40L LID RECYCLE YELLOW • (MS-1040-RECY)	
Source Separation Systems Phone - 02 4940 4648 www.sourceseparationsystems.com.au	
Streetscape – External / Internal Circulation Spaces (high spec, urban aesthetic)	
Twin-Bin System General waste (red signage) and mixed recycling (yellow signage)	

Supplier Specification	Design
FURPHY FOUNDRY • Litter Receptacle 120lt Perforation: RMIT Logo Custom (no ashtray) No key lock • Recycling Receptacle 120lt Perforation: RMIT Logo Custom No key lock Finishes: • External – Stainless steel • Internal Circulation Spaces – Powder coated	
FURPHY FOUNDRY Phone - 03 9810 3183 www.furphyfoundry.com.au	

5.19. Loading Docks

Requirements for these spaces are as follows:

5.19.1.	The minimum height clearance of a loading dock where deliveries or waste collection is conducted is 4 metres.

6. Furniture and Fittings

RMIT promotes innovation in design and actively promotes variety in the appearance of its facilities and buildings, however in doing so RMIT request that the following criteria are complied with:

6.1. General

For material and finishes specification criteria refer to 3.6 Materials and Finishes (LINK) of this Design Standard.

6.1.1.	Consultants shall specify environmentally sustainable products with supporting documentation validating compliance or third party product certified such as; • Carpet Institute of Australia Ltd – Environmental Certification Scheme • Ecospecifier – GreenTag GreenRate • GECA certified product or industry equivalent • The Institute for Market Transformation to Sustainability – Sustainable Materials Rating Technology
6.1.2.	Documentation shall show the proposed position of all specified workplace and loose furniture.
6.1.3.	Items shall as far as possible be sourced for their ease of replacement, short lead-times with a preference for stocked items, and easy spare parts supply.

6.2. AV/ICT Integration

Refer to **Volume 11 Audio Visual** for standard AV requirements.

6.2.1.	Coordinate teaching brief requirements with stakeholders and ICT. Ensure design meets pedagogic requirements of spaces.
6.2.2.	Ensure that all services reticulation is carefully detailed where required to be built into fixtures and fittings.

6.3. Loose Furniture

For material and finishes specification criteria refer to **3.6 Materials and Finishes** (LINK) of this Design Standard. RMIT request that the following criteria are complied with:

6.3.1.	Workstations General Workstations shall comply with the Blue Tick certification from the Australasian Furnishing Research and Development Institute, or approved equivalent, and the following criteria; • A fixed height of 720mm with the minimum adjustable capacity to be adjusted up or down by an adjustable leg from 650-850mm, adjustment by a technician. • Height adjustment mechanism is not to be located on work surface or obstruct leg space, and shall be adjustable without the need for special tools. • Workstation shall have the ability to change the layout if required • L Shaped desks are not to be used unless instructed by RMIT. • Shark nose edge detail is preferred to workstation tops. • Standard work surface colour: White. Should alternative colours be proposed, there should be minimal contrast between desk top and paperwork. Noting alternative colours are discouraged. • Location of hardware at work point is to be coordinated with users. • Workstations desk are to be scalloped for cable access from under bench.

6.3.2. Workstation Screens

- Screens are to be provided between opposing workstations to a maximum height of 1200mm AFFL
- Screens are not to be installed between adjacent workstations or at ends.
- Self-healing pin-able acoustic material to be provided to workstation screens that is removable for ease of repair and replacement. Where a workstation is located against a wall, a pin board is to be provided equivalent to the screen.

6.3.3. Workstation Storage

- Personal storage allocations are determined by the **RMIT University Workspace Guidelines** which can be provided on request by RMIT University Property Services.
- Mobile pedestals or mobile caddy are to be provided to stakeholder requirements, and shall include one lockable file draw at each work point.
- Powder coated metal or laminate finishes are acceptable.
- Screen mounted shelves shall be adjustable and removable
- Individual coat storage is not acceptable refer to section 6.4.12 Sundry Items (LINK) for coat storage requirements.

6.3.4. Workstation Services Requirements

- The design team shall determine with stakeholders and ICT the equipment/hardware requirements and design workstations to accommodate.
- If equipment requiring connection to power, computer, telephone or other services is to be installed as part of the workstation system, specify all service connections, cable management systems, penetrations and grommet covers.

6.3.5. Chairs General

All chairs should be compliant with AS 4438 and Blue Tick Certification for the Australasian Furnishing Research and Development Institute or industry equivalent. Suppliers are to provide evidence of current certification:

- Standards (AFRDI) (also known as Furntech) endorsing that the chair has been tested as meeting AS/NZS 4438 and the nominated Service Durability Level.
- Where the Furntech – AFRDI certification does not cover fabric, the purchaser must have confirmation that fabric meets the flammability requirements of AS/NZS 4088.1

Castors:

- Chairs on carpet to use hard castors,
- Chairs on hard surfaces to use soft castors and semi lock mechanism

A trial should be undertaken of new chairs by proposed users and RMIT OH&S.

- Chairs are to be selected to be appropriate for their intended use, minimum criteria for chairs are as follows;

6.3.6. Teaching/Learning Spaces

Seating in teaching and learning spaces is to be specified to meet the requirements of the brief and the following criteria;

- Ergonomically designed
- To have an upholstered seat, upholstered backs are preferred
- Four leg base chairs on castors, and swivel chairs on five point castor base are acceptable. The provision of castors is preferred unless otherwise directed by RMIT.
- Include the option of an arm rest, allocation of armrest to be determined with stakeholders. Chairs without arms are preferred.

- Seats are preferred to have 360 degree swivel and be easily adjusted from the seated position.
- May require integrated tablet writing/laptop support, requirements shall be coordinated with stakeholders and in conjunction with WHS approvals.
- Be stackable in multipurpose or flexible spaces.

6.3.7. Lecture Theatres

Proprietary lecture theatre seating system as approved by RMIT and shall;

- Have upholstered seat and backrest.
- Ergonomically designed
- May require integrated tablet writing/laptop support, requirements shall be coordinated with stakeholders and in conjunction with WHS approvals.
- May have specific functional requirements to support teaching space to be coordinated with stakeholders and in conjunction with Workplace Health and Safety (WHS) and the Office of the Dean Teaching and Learning (ODLT) approvals.

6.3.8. Meeting Rooms and Boardrooms

Spaces where people are to sit for medium to long periods of time (i.e. over 2 hours) to study or attend meetings shall have chairs with the following criteria;

- Ergonomically designed
- Upholstered seat is essential, upholstered backs are preferred
- Have 5 point castor bases are preferred.
- Adjustable armrests which can be removed.
- Adjustable in height.
- Seat pan must be wide enough to accommodate the hips of the user and deep enough so there is no pressure to the underside of thighs and knees, with a height adjustment range that allows work surface to be at elbow height.

6.3.9. Task Chairs

All work points shall have chairs with the following criteria;

- Ergonomically designed
- Upholstered seat is essential, upholstered backs are preferred
- Have 5 point castor bases.
- Adjustable armrests which can be removed.
- Adjustable height and seat
- Seats must have 360 degree swivel and be easily adjusted from the seated position.
- Seat pan must be wide enough to accommodate the hips of the user and deep enough so there is no pressure to the underside of thighs and knees, with a height adjustment range that allows work surface to be at elbow height.

6.3.10. Casual / Informal Meeting and Study Areas

Spaces where people are to sit for short periods of time (i.e up to 2 hours) shall have chairs with the following criteria;

- Fixed seating is preferred
- Minimum four leg or sled base chairs are acceptable.
- Seating to be specified for an upright sitting position suitable for study.

6.3.11. Kitchens

High use spaces for student study or social activity are to have chairs with the following criteria;

- Must have as a minimum a four leg or sled base, without armrests.
- Upholstered chairs are acceptable in vinyl or similar approved. Woven fabrics shall not be used.
- Materials such as polypropylene or plywood are acceptable.
- Chairs with backs are preferred, stools are discouraged

6.3.12. Tables

Tables shall meet the following criteria;

- Tables and work surfaces shall be large enough to accommodate laptops and notepads.
- Standard legs and frames are to be at a minimum mild steel powder coated
- Impact resistant edging is required to all table edges
- Minimum 18mm thick MDF or compact laminate table tops are required
- Laminate finish is preferred to horizontal surfaces
- Standard table top colour; White
- Table's functionality as required by user group, WHS, and ODLT.
- Where large tables are required a modular table systems shall be used

6.3.13. Tables for External Use

Tables for external use shall meet the following criteria:

- Must be constructed of weather resistant finishes.
- Firmly secured, or easily moved for storage overnight.
- Modular, stackable when required to be stored overnight, vandal proof and scratch resistant

6.3.14. Whiteboards and Pin boards and Noticeboards

Requirement for whiteboards and pin boards in staff areas are to be reviewed in detail with stakeholders and comply with the following;

- Acoustic pin boards are required to workstation screens, whiteboard are to be provided to support collaboration as required by stakeholders.
- Whiteboards are to be provided in meeting rooms, pin boards are not to be included.
- Where edges of boards are exposed, discrete edge protection such as an aluminium angle shall be provide to the full perimeter of the boards.
- Whiteboards and pin boards are to be fixed to walls. Freestanding whiteboards or pin boards require approval by RMIT University Property Services and are only permitted in specific circumstances.
- Opportunity to utilise glazed wall partitions as whiteboards to be investigated with stakeholders, eg. Research areas, fostering collaboration etc.
- Pin boards in public areas are to be avoided and instead installation of AV/ITS solutions included in designs.
- Whiteboards are to include the incorporation of means to store writing instrument
- Opportunity for collaborative or teaching spaces to incorporate whiteboard paint to walls may be considered on a case by case basis.

6.3.15. 2 x A4 clear wall mounted, framed sign holders are required where a directory IP phone is installed for contacts list, and instructions.

6.3.16. Visual Displays

Display of artwork or objects are to be avoided and instead installation of AV/ITS solutions preferred;

- Glass display cases are typically not permitted. If requested by stakeholders the

consultant the request shall be conveyed in writing to the nominated RMIT University Property Services representative.

- Existing displays are not to be replicated in refurbishment works.
- Dedicated gallery spaces or areas for hanging art are discouraged.

6.4. Fixtures and Fittings

This section is to be read in conjunction with **Volume 5 Hydraulic Services.** All fixtures are fittings are to comply with the following criteria:

6.4.1. Sanitary Fittings General

Efficient, minimum WELS 3 Star (Min) sanitary fixtures are to be specified.

6.4.2. Floor Wastes

Floor wastes shall be specified to meet the following criteria:

- Floor wastes shall have removable chrome plated brass grates.
- Floor waste risers shall be not less than 80mm diameter.
- Floor wastes shall be charged with a fixture.
- Deep seal (75mm) traps are to be provided to plant/air handling and laboratories.

6.4.3. WC's and Urinals

WC's and Urinals shall be specified to meet the following criteria:

- Waterless urinals are not to be specified
- White wall hung ceramic pans with white plastic lids are to be specified.

6.4.4. Sinks and Vanity Basins

Sinks and basins shall be specified to meet the following criteria:

- Vanity hand basins shall be vitrified ceramic set into a continuous solid surface material (such as Corian) vanity top with a front section with a minimum of 150mm deep with services lines concealed from view. If pipes are exposed, the pipes and fittings shall be fully chromed.
- Kitchen and Tea Point sinks shall be stainless steel proprietary commercial sinks.
- Under mounted or integrated sinks in kitchens or tea points are not acceptable.
- Laboratory and special purpose sinks shall be designed to suit the purpose of the space, and stakeholder requirements.

6.4.5. Showers Fittings

Shower fittings shall be specified to meet the following criteria:

- Showerheads with fixed arms are to be provided, mounted at a minimum of 1900mm above the FFL, adjustable to a height of 1.5m – 2.1m.
- Refer to sections 5.3 Toilet and Shower Facilities for additional information.

6.4.6. Taps and Mixers

Taps and mixers shall be specified to meet the following criteria:

- Commercial grade push button taps with adjustable time flow shall be used at all vanity basins.
- Tap fittings shall be stainless steel finished and allow for simple operation.

6.4.7. Toilet and Shower Partitions

Partitions shall be specified to meet the following criteria:

- Toilet cubicle doors are to be provided with adjustable door hinges such that the door remains in the closed position when the cubicle is unoccupied.
- Full height toilet cubicles constructed from polyurethane finished high-density fibreboard on stainless steel feet, with matching durable PVC edges are to be provided as a minimum standard.
- Closed and locked toilet cubicle doors shall be capable of being removed in an emergency situation where the occupant becomes incapacitated.
- Toilet and shower cubicle doors shall be fitted with integral coat hook/door stops and also with a safety catch and integral vacant/engaged indicators.
- Refer to sections 5.3 Toilet and Shower Facilities for additional information.

6.4.8. Hand Dryers

Hand dryers shall be specified to meet the following criteria:

- Dyson Air Blade or equivalent hand dryers are to be specified, to comprise as a minimum, HEPA filter, high speed drying and energy efficient properties.
- Refer to sections 5.3 Toilet and Shower Facilities for additional information.

6.4.9. Soap/Toilet Paper

RMIT's cleaning contactor will provide and install soap in toilet and shower facilities. RMIT shall provide dimensions on request.

6.4.10. CW/HW Units

Zip Industries (LINK) units are the preferred supplier for RMIT. Kitchens and tea points are to have either;

- Boiling and chilled filtered drinking water, with separate hot and cold water tap/mixer..
- OR Zip - HydroTap G4 All-in-One unit. Boil/Chilled + Hot/Cold integrated tap.

Specification to be nominated to suit the purpose of the space and stakeholder requirements

6.4.11. Drinking Fountains

Any new drinking fountains are to be approved by RMIT University Property Services

Refer to **Volume 5 Hydraulic Services** for further detail. All drinking fountains shall comply with the following design criteria;

- The area shall have a vinyl or similar impervious floor finish for easy cleaning.
- Shall include a bottle filler and be connected to sewer.

6.4.12. Sundry Items

Coat Hooks are to be provided as a minimum to;

- the back of all toilet partition doors
- one to each enclosed office
- two in each cleaners store

Shared coat racks are to be;

- Provided in academic workspaces for staff coat storage
- A suitable size to accommodate the needs of stakeholders.
- Shall not obstruct paths of travel when fully loaded.
- Individual coat storage is not acceptable in open plan office areas

	• May be within a cupboard or firmly mounted to the wall
6.4.13.	Projection Screens Projection screens are to be discouraged, a flat homogenous white wall free of services shall be provided as a projection surface in lieu of a screen

6.5. Lockers

Lockers are to be provided for general use, and to support after trip facilities for cyclists. For after trip and cyclist facilities refer to section **7.4 Secure Bicycle Parking** in this Design Standard.

6.5.1.	The consultant is to confirm with RMIT University Property Services if there is a requirement for lockers, and the quantity required.
6.5.2.	Proprietary lockers designed for heavy duty use are to be used in preference to bespoke locker construction.
6.5.3.	General use lockers to be approximately450mmH x 500mmD x 300mmW, size to be coordinated with stakeholder requirements.
6.5.4.	All lockers are to be located in areas where passive surveillance is possible; they shall not be located in isolated areas.
6.5.5.	The consultant is to confirm if there is a requirement for the inclusion of specific user requirements for example; • Power for device charging • Rail • Shelf • Hooks • Hanging space
6.5.6.	Lockers are to be constructed from highly durable materials such as compact laminate or powder coated metal.
6.5.7.	Lockers shall be designed for relocation and removal without significant alteration to building fabric.
6.5.8.	Where lockers are provided to students for long term use, locker doors are to include an area of transparency to allow for ease of visual inspections of contents by security.
6.5.9.	Locker security system is to be confirmed during design, coordinated with stakeholder requirements.

6.6. Joinery

For material and finishes specification criteria refer to **3.6 Materials and Finishes** (LINK) of this Design Standard. Joinery is to be designed for the purpose of the intended space. All storage joinery shall be coordinated with stakeholder requirements and RMIT University Property Services and comply with the following criteria;

6.6.1.	Accommodation for books, documents, instruments, notice and whiteboards and laboratory benching, where applicable, is designed to be built-in and standardised throughout the building.

6.6.2.	All wall-mounted fitments shall be designed to prevent personal injuries from failure of components. Where shelf units have weight limitations that can be readily exceeded they shall be clearly labelled.
6.6.3.	Glass cabinets, including glass doors, track and locking mechanisms shall comply with all safety standards to ensure sufficient and accurate structural backing is provided.
6.6.4.	As a minimum all benches and cupboards allow sufficient space for wheelchair manoeuvring.
6.6.5.	High moisture resistant particle board or other MR material is to be used in all wet areas. Standard MDF is not to be used in wet areas.
6.6.6.	Cupboard doors are to be fitted with commercial quality heavy-duty Boss style/concealed hinges.
6.6.7.	Drawer runners are to be proprietary metal full extension runners suited to the following potential storage loads: • Not less than 40kg/pair capacity for drawer height up to 150mm internally • Not less than 50kg/pair capacity for drawers height over 150mm internally • Heavy loaded drawers may require runners of 100kg/pair or 150kg/pair capacity
6.6.8.	Adequate ventilation is to be provided to cupboards containing heat generating equipment and fittings including computers, AV equipment, refrigerators, under bench boiling/ chilled water units.
6.6.9.	Storage units and shelves are to be designed to support the maximum capacity of storage without failing, bowing or deflecting.
6.6.10.	Shelves are to be adjustable, and specified for ease of replacement.
6.6.11.	Workspace drawer units shall be run on metal extension slides with steel bearings, keyed alike with the cupboard.
6.6.12.	Stainless steel bench tops are not acceptable other than in workshops or laboratory spaces where code compliance or specific functionality requires it.
6.6.13.	Cupboards and doors are to be installed without locks; the provision of locking shall be requested by stakeholders directly through RMIT University Property Services.
6.6.14.	Joinery shall be carefully detailed to prevent damage to external corners of joinery where located in high traffic or student study spaces.
6.6.15.	Upholstered items are to be detailed to be constructed and installed in sections to enable ease of removal and replacement of individual parts.

6.7. Lecterns and Teachers Consoles

Lecterns and teacher consoles are to be provided in all teaching spaces to the RMIT standard.

Detailed drawings of standard lectern and teacher consoles are available on request from RMIT.

6.8. Tactile Ground Surface Indicators

All tactile surface indicators (TSGI's) specifications are to comply with the following criteria:

6.8.1.	Stainless steel individual dots are to be used for TSGI's, partial plastic inserts are not acceptable.
6.8.2.	Plastic or PVC TSGI's are not acceptable.

6.9. Window Furnishings

All window furnishing specifications are to comply with the following criteria:

6.9.1.	Internal blinds are to be provided to control glare and radiant heat, however they should not be used as a substitute for adequate external solar control devices.
6.9.2.	Shall be non-flammable, easily adjustable anti-glare blinds, complete with guide rails and associated fixings.
6.9.3.	Installation of blinds shall allow for ease of removal and replacement of all parts.
6.9.4.	All external windows shall have roller blinds, concealed within pelmets or other building elements where possible so that when open do not obstruct the view to outside.
6.9.5.	Roller blind fabrics in areas requiring black-out capacity shall be block-out type. Fabrics to external window shall be glare control types where block out is not required.
6.9.6.	Roller blind fabrics are as a minimum to be certified by GREENGUARD or equivalent approved certification.
6.9.7.	Curtains may be considered in special applications only, RMIT University Property Services approval of all curtain applications and specification is required.

7. Transport Infrastructure

7.1. General

Consultants shall incorporate the recommendations of **RMIT Integrated Sustainable Transport Plan (ISTP)** including the provision of all transport infrastructure allow with the following criteria:

7.1.1.	Routes are to be designed to suit projected traffic patterns and destinations, and where possible integrated within a network of open space.
7.1.2.	All access ways shall be self-draining either by 'crowning' or by cross fall.

7.2. Pedestrian Access

All pedestrian access paths are to comply with the following criteria:

7.2.1.	The minimum width for pedestrian footpaths is 1.2m. Pedestrian access paths are not to be shared with bicycle paths.
7.2.2.	Pedestrian footpaths shall be • Self-draining either by 'crowning' or by cross fall • Finished in such a way to provide adequate slip resistance and low maintenance. (Steel trowelled finish on concrete paths is not suitable)

7.3. Bicycle Paths

All bicycle paths are to comply with the following criteria:

7.3.1.	Where appropriate, bicycle paths and parking facilities are to be incorporated into the building design and surrounding landscape.
7.3.2.	Cycle paths shall be: • Provided with separate access to the site from motorists and pedestrians • Self-draining either by 'crowning' or by cross fall • Finished in such a way to provide adequate slip resistance and low maintenance. (Steel trowelled finish on concrete paths is not suitable).

7.4. Secure Bicycle Parking

All secure bicycle parking is to comply with the following criteria:

7.4.1.	Secure bicycle parking is required to accommodate 5% students (calculated on 75% occupancy EFTSL) and 10% staff.
7.4.2.	Secure bicycle parking shall meet the following requirements: • Access should be from a street frontage, without passage through the building. • Secure fencing to be provided with RMIT standard CCTV and swipe card access controls. • Facility to be bright and well lit, flooring to be slip resistant. • Decals to be used on walls and floors for way-finding and to promote the facility (see examples in **Figure 1** below).
7.4.3.	Bicycle racks shall be selected from the styles shown in **Table 8** These styles have been selected to accommodate a range of bicycles, cyclist preferences and physical abilities.
7.4.4.	A minimum of 20% of the bike racks are required to be floor mounted.
7.4.5.	Lockers

There should be a minimum allocation of one locker per bicycle.

7.4.6. Lockers and locks shall meet the requirements below. See example shown in **Figure 2** (LINK):

- Locker size: provide a clothes hanging area with internal dimensions of at least 975mmH x 300mmW x 600mmD. No shelving should obstruct the hanging area. If shelving is incorporated, the size of the locker should be increased to preserve the minimum clearance.
- Lock: the lockers should be secure with a waterproof electronic key pad, with a 24 hour expiry (capable of being reprogrammed).
- Shoes: Provide a shoe storage area (separate from lockers) with dimensions of at least 200mmH x 250mmW x 350mmD per locker.
- Lockers shall include venting to prevent the build-up of moisture and odours, venting may be to rear or within the door of the lockers.

7.4.7. After Trip Facilities

After trip facilities shall include:

- Drying areas - Provide an airing zone or ventilated cupboard so users can dry damp/wet clothes with towel drying rails (hooks are not suitable). The recommended dimensions of the drying area are 975mmH x 1200mmW x 600mmD per 5 showers. It is best practice to provide mechanical ventilation to the drying area.
- Provide at least one ironing board and iron in both male and female facilities.
- Hair dryers - hair dryers are recommended for both female and male facilities.

7.4.8. Showers shall be provided at a ratio of 1 shower per 25 bicycles. Showers shall meet the specification outlined in 5.3 Toilet and Shower Facilities and 6.4 Fixtures and Fittings

7.4.9. Changing Area

A changing area shall be provided with appropriate space for users to get changed before and after showering**.** The changing area must:

- Be located immediately adjacent to lockers and in close proximity to showers.
- Provide adequate space for users to circulate and change, i.e. a minimum 1500mmW zone between rows of lockers (measured from locker face to locker face), with extra allowance if there is an island bench or integrated bench seating.
- Toilets should always accompany change facilities.

Figure 1: Secure Storage Example Decals

Table 8: Secure Storage Bicycle Rack Styles

	Type: Galvanized Finished Hoop (Bolt Down) Capacity: 2 Bicycles Min Ceiling Height: 2100mm Dimensions: 850mmH x 590mmW x 50mmDia. Spacing: 1000mm Centres (500mm/ bicycle)
	Type: Pushbike Cradle Capacity: 1 Bicycle Min Ceiling Height: 2250mm Dimensions: See manufacturer specification Spacing: 400mm Centres (staggered mounting height) OR 600mm Centres (single tier)
	Type: Penny Farthings Slide Capacity: 1 Bicycle Min Ceiling Height: 2100mm Dimensions: 1080mmH x 270mmW x 2050mmD Spacing: 310mm Centres

Figure 2: Example lockers and locks for secure bicycle storage facilities

7.5. External Bicycle Parking

All external bicycle parking shall comply with the following criteria:

7.5.1.	External bicycle park racks should enable both wheels to be secured / support bicycles in two places. Spiral design racks, which fail to support two bicycles per hoop and creates difficulties for safely securing bicycles at two points, shall be avoided. The preferred style of bicycle rack is shown in **Table 9**.
7.5.2.	Racks should be located close to building entry points to maximise passive surveillance.
7.5.3.	Sufficient space should be provided for ease of manoeuvrability around rack and should be accessible from front and back.
7.5.4.	Should not obstruct pedestrian or vehicular flow and should be integrated and harmonised within local context.

Table 9: External Parking Bicycle Rack Style

	Type: Stainless Steel Hoop (Bolt Down) Capacity: 2 Bicycles Dimensions: 810mmH x 1000mmW x 50mmDia. – tube maximum diameter of 70mm to support the use of U-locks. Spacing: 1000mm Centres (500mm/ bicycle)

7.6. Car Parking

Designs shall adopt the recommendations of **RMIT's Parking Strategy**, including the provision of preferential spaces for car sharing vehicles and shall incorporate the recommendations of **RMIT's Transport Strategy** including the provision of bicycle sharing facilities.

Appendix A - PLANNING AND HERITAGE

The purpose of this appendix is to provide an outline of the planning and heritage requirements that pertain to use and development at RMIT University's Melbourne city campus. For detailed planning and heritage information regarding a specific site, further consultation with a suitably qualified expert may be required. This appendix shall be read in conjunction with the Melbourne Planning Scheme.

The overview of planning controls at the Melbourne City Campus has been setout according to various 'Precincts' as follows and illustrated in **Figure 4** below;

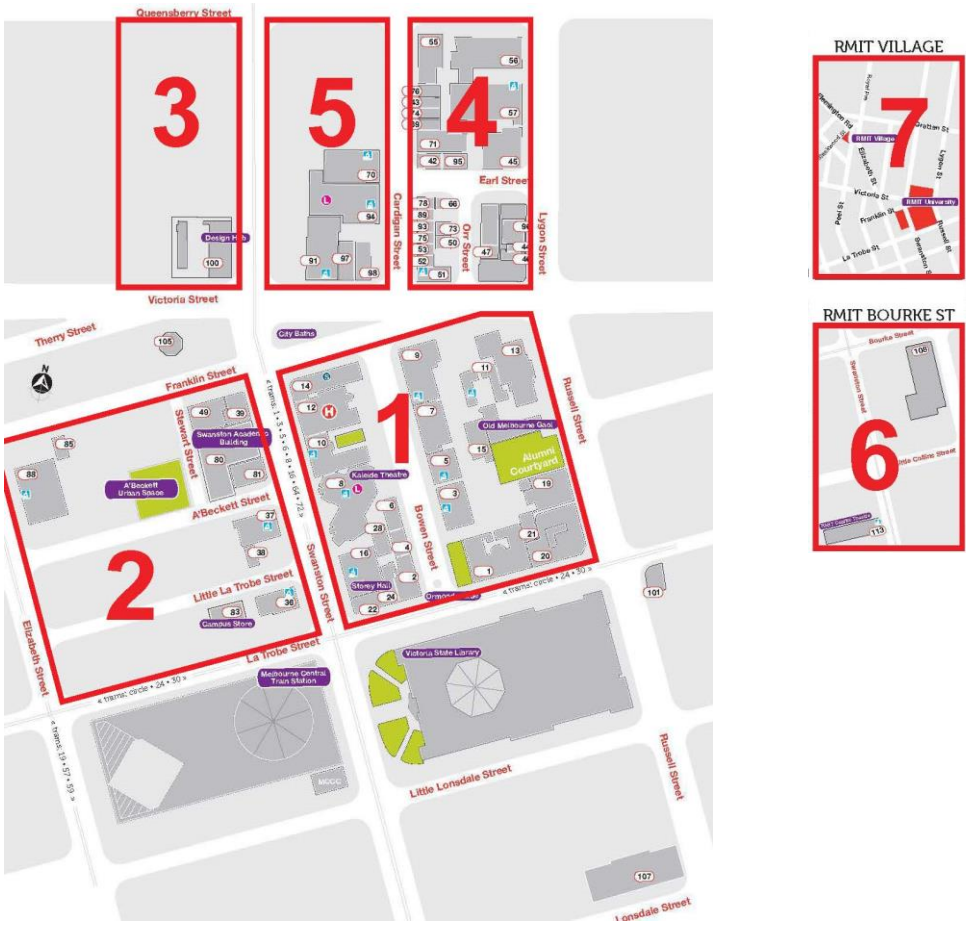


Figure 4

Precinct Map

Precinct 1 Main campus. Properties bounded by Swanston Street, Latrobe Street, Russell Street and Franklin Street.

Precinct 2 Properties bounded by Swanston Street, Franklin Street, Elizabeth Street and A'Beckett Street.

Precinct 3 Former CUB Site. Properties bounded by Swanston Street, Victoria Street, Queensberry Street and Bouverie Street.

Precinct 4 Properties bounded by Victoria Street, Cardigan Street, Queensberry Street and Lygon Street.

Precinct 5 Properties bounded by Victoria Street, Swanston Street, Queensberry Street and Cardigan Street.

Precinct 6 RMIT Bourke Street

Precinct 7 RMIT Village

The consultant is to confirm the criteria required by Melbourne City Council and the Heritage Council of Victoria on a case by case basis, and design to these requirements. For detailed information and a current list of buildings and gradings of heritage buildings restrictions, refer to;

- **Melbourne Planning Scheme Heritage Places Inventory.**
- **Heritage Council of Victoria**

A.1 Precinct 1

Main campus
A.1.1 Planning Overlays and Zones Public Use Zone (PUZ) • Buildings 19, 20, 21 and 23 Within a Public Use Zone, a planning permit is required to construct a building or construct or carry out works associated with any permit-required use, and to subdivide land. RMIT is understood to be the public land manager of these buildings. Any application for a permit by a person other than a public land manager must be accompanied by the written consent of the public land manager. Mixed Use Zone (MUZ) • Buildings 19, 20, 21 and 23 Therefore any proposal connected to the use of the land for education requires a planning permit.
A.1.2 Heritage Overlays Precinct 1 is affected by a number of Heritage Overlays, refer to **Figure 5** below. Building Contained within the schedule to the Heritage Overlay are listed in **Table 10** below.

Figure 5

Precinct 1 – Heritage Overlays

Table 10

Planning Scheme Reference	Heritage Address	RMIT Building No.	Victorian Heritage Register Reference
HO479	Building No. 2, 4 & 6 RMIT, Bowen Street, Melbourne	Building no's. 2, 4 & 6	N/A
HO480	Building no.'s 3, 5 & 7 RMIT, Bowen Street Melbourne	Building no's. 3, 5 & 7	N/A
HO481	Foresters Hall, 168- 170 Latrobe Street Melbourne	Building No. 24	Ref No H1495
HO482	Former Hibernian Hall (Storey Hall) 344-346 Swanston Street Melbourne	Building No. 16	Ref No. H1498
HO483	Building No. 9, Bowen Street Melbourne	Building no. 9	Ref No. H1506
HO484	City Watch House, Russel Street,	Building no. 19	Ref No.

	Melbourne		H1006
HO485	Emily McPherson College, Russell Street Melbourne	Building No. 13	Ref No. H1646
HO485	Old Melbourne Gaol, Russell Street Melbourne	Building No. 11	Ref No. H1553
HO486	Police Garage, Russell Street Melbourne	Building No. 18	Ref No. H912
HO487	Court of Petty Sessions, 325 Russell Street Melbourne	Building no's. 20 & 21	N/A
HO982	Francis Ormond Building, 124 La Trobe Street Melbourne	Building No. 1	H2157

A.2 Precinct 2

Properties Bounded by Swanston, Franklin, Elizabeth and A'Beckett Streets

A.2.1 Planning Overlays and Zones

Capital City Zone Schedule 1 - Outside of the Retail Core (CCZ1)

Schedule 1 – Outside of the Retail Core

Design 7 Development Overlay (DD01 Schedules 1- 4)

Schedule1 – Active Street Frontages

Schedule 2 – Height Controls

Schedule 3 – Traffic Conflict Frontage

- Applies to Buildings 39,48 and 80

Schedule 4 – Weather Protection

Special Building Overlay

Properties with a frontage to Elizabeth Street, currently Building 88 fall within this Overlay.

All RMIT buildings within Precinct 2 are within **CCZ1** and **DD01-4** and require a planning permit to construct or demolish a building or carry out works.

A.2.2 Heritage Overlays

Precinct 2 is affected by a number of Heritage Overlays, refer to **Figure 6** below. Buildings Contained within the schedule to the Heritage Overlay are listed in **Table 11** below.

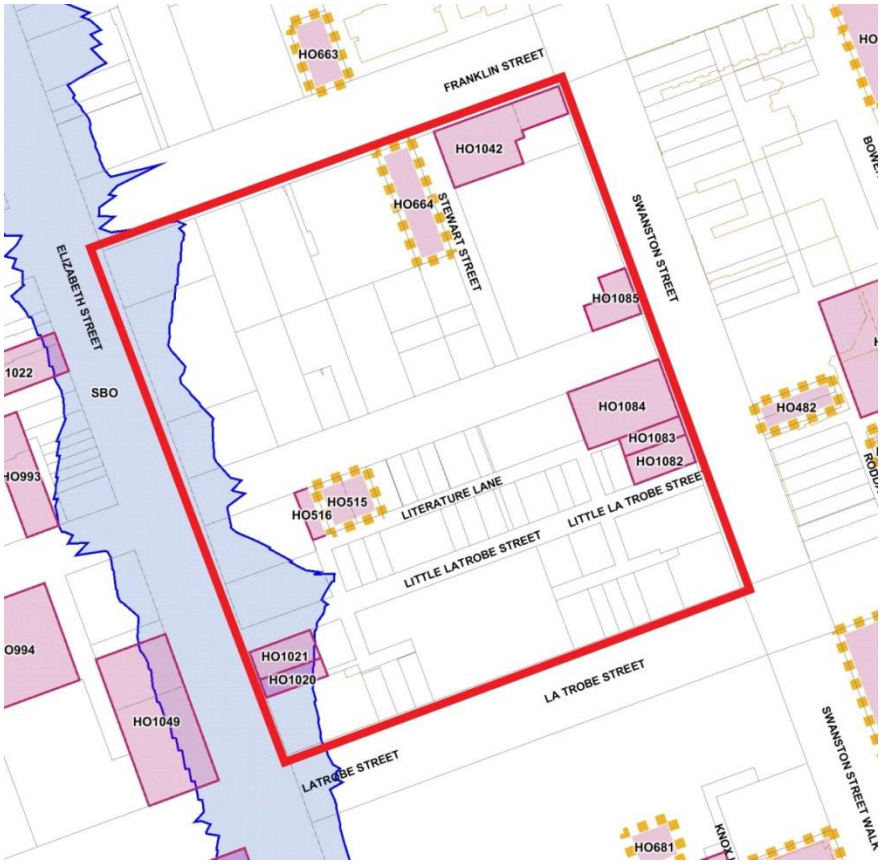


Figure 6

Precinct 2 – Heritage Overlays

Table 11

Planning Scheme Reference	Heritage Address	RMIT Building No.	Victorian Heritage Register Reference
HO1042	Building no.'s 39 (Gateway House) & 49 RMIT, Swanston Street Melbourne	Building No. 39 & 49	N/A
HO1084	Building No. 37 RMIT, Swanston Street Melbourne	Building No. 37	N/A
HO1085	Building No. 81 RMIT (Oxford Scholar Hotel), Swanston Street Melbourne	Building No. 81	N/A

A.3 Precinct 3

Former Cub/Pacific Central Site bounded by Swanston, Victoria, Queensberry and Bouverie Streets
1.A.1 Planning Overlays and Zones Comprehensive Development Zone Schedule 2 - Outside of the Retail Core (CDZ2) **Schedule 2** – Pacific Central All RMIT buildings within Precinct 2 are within **CDZ2** and require a planning permit to construct or demolish a building out carry out works.
1.A.2 Heritage Overlays Precinct 3 is affected by a number of Heritage Overlays, refer to **Figure 7** below.

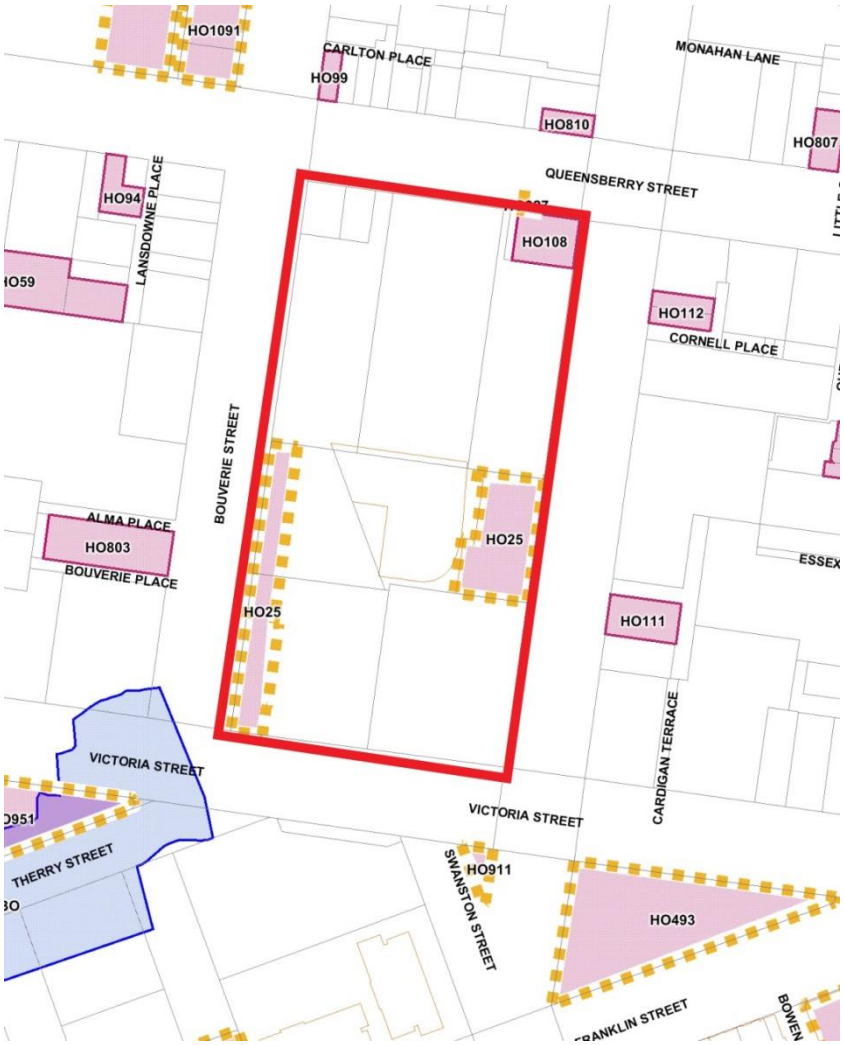


Figure 7

Precinct 3 – Heritage Overlays

A.4 Precinct 4

Properties bound By Victoria Street, Cardigan Street, Queensberry Street and Lygon Street, Carlton
A.4.1 Planning Overlays and Zones Mixed Use Zone (MUZ) Design and Development Overlay Schedule 44 (DD044) **Schedule 44** – Elizabeth Street and South Carlton All RMIT buildings within Precinct 4 are within **MUZ** and **DD044** require a planning permit to construct or demolish a building or carry out works.
1.A.3 Heritage Overlays Precinct 3 is affected by a number of Heritage Overlays, refer to **Figure 8** below. Buildings Contained within the schedule to the Heritage Overlay are listed in **Table 13** below.

Figure 8

Precinct 4 – Heritage Overlays

Table 13

Planning Scheme Reference	Heritage Address	RMIT Building No.	Victorian Heritage Register Reference
HO35	Building No's 53 & 75. 18-22 Cardigan Street Carlton	Building no's. 53 & 75	N/A
H035	Building no's. 43, 69, 74 & 76. 50-56 Cardigan Street Carlton	Building no's. 43, 69, 74 & 76	N/A
HO64	Building No's 44, 46 & 96. 1-31 Lygon Street Carlton	Building no's. 44,46 & 96	N/A

A.5 Precinct 5

Properties bound By Victoria Street, Swanston Street, Queensberry Street and Cardigan Street, Carlton
A.5.1 Planning Overlays and Zones Mixed Use Zone (MUZ) Design and Development Overlay Schedule 44 (DD044) **Schedule 44** – Elizabeth Street and South Carlton All RMIT buildings within Precinct 4 are within **MUZ** and **DD044** require a planning permit to construct or demolish a building or carry out works.
A.5.2 Heritage Overlays Precinct 4 is affected by a number of Heritage Overlays, refer to **Figure 9** below.

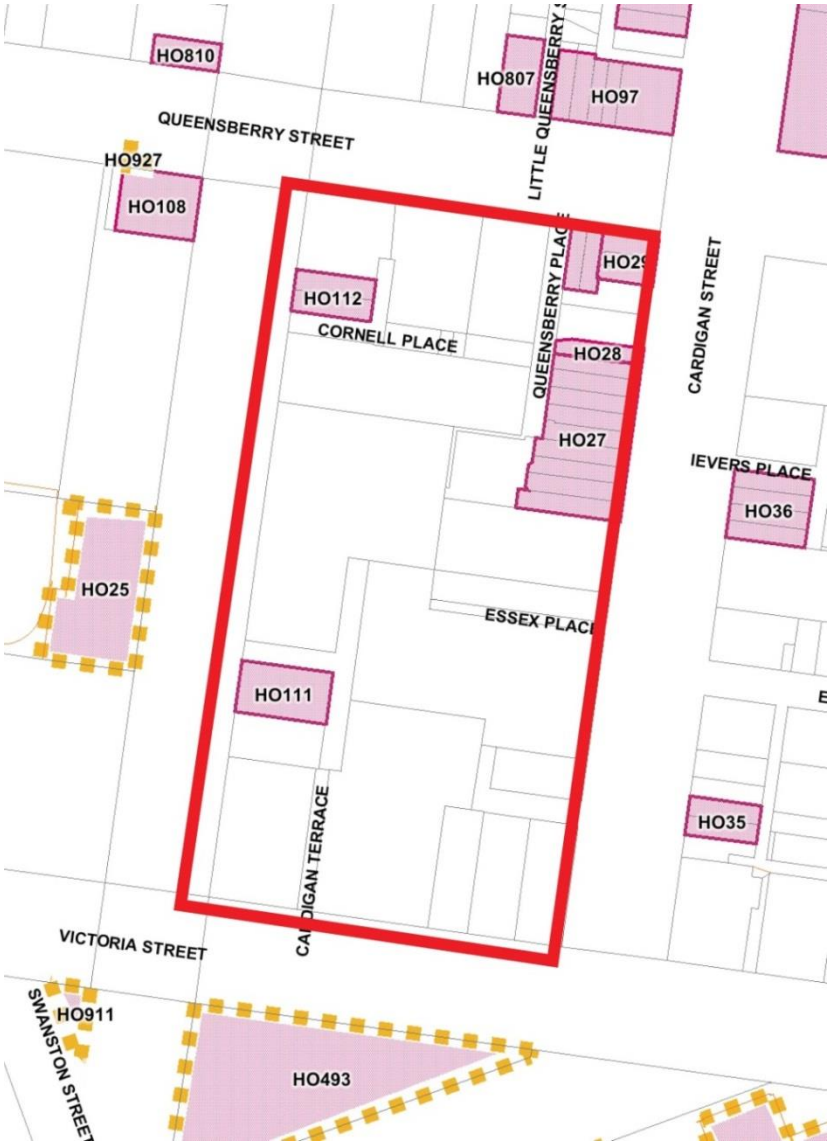


Figure 8

Precinct 5 – Heritage Overlays

A.6 Capitol Theatre

(113 Swanston Street, Melbourne)
A.6.1 Planning Overlays and Zones Capital City Zone (CCZ2) Schedule 02 – Retail Core Design and Development Overlay Schedule 1-3 (DD01, DD02-A1, DD03) **Schedule 01** – Active Street Frontages **Schedule 02** – Height Controls, 40 metres. **Schedule 03** – Traffic Conflict Frontage

Special Building Overlay (SBO) All RMIT buildings within are within **CCZ2, SBO** and **DD0** require a planning permit to construct or demolish a building or carry out works.
A.6.2 Heritage Overlays The Capitol Theatre is affected by a number of Heritage Overlays, refer to **Figure 9** below. Details contained within the schedule to the Heritage Overlay are listed in **Table 14** below.

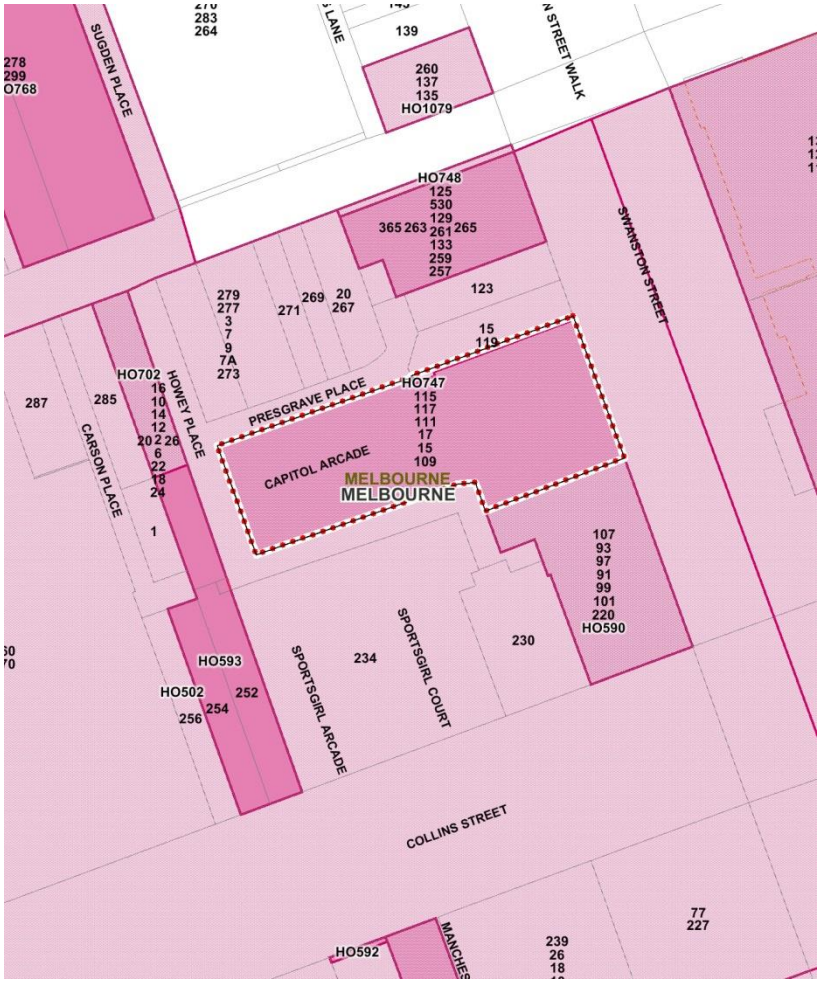


Figure 9
Capitol Theatre – Heritage Overlays

Table 14

Planning Scheme Reference	Heritage Address	RMIT Building No.	Victorian Heritage Register Reference
HO502/HO747	Capitol Theatre, 113 Swanston Street, Melbourne	Building no 113	H0471

Appendix B - TEACHING CONSOLES

Teaching consoles attachments are made available upon request.