Property Management Guidance

This Guidance is part of the Commonwealth Property Management series of guidance material developed by the Property and Construction Division in the Department of Finance and Deregulation (Finance). The Property and Construction Division has developed a suite of material to assist Australian Government entities in their management of property assets. The published suite of documents form part of the Financial Management Guidance series issued by Finance including:

No. 12 Flexible and Efficient Workplace Design Guidance
No. 13 Overview of the Commonwealth Property Management Framework
No. 15 Whole-of-Life Costing for Australian Government Property Management
No. 16 The Commonwealth Property Management Guidelines
No. 18 Property Management Planning Guidance

This series of guidance materials supports the Commonwealth Property Management Framework (Property Framework) which facilitates informed decision-making processes and establishes the foundation for the efficient, effective, sustainable and ethical use of Commonwealth property resources. Accordingly, this document forms part of the guidance to agencies under the Property Framework.

An overview of the Property Framework is provided in Financial Management Guidance No. 13 ‘Overview of the Commonwealth Property Management Framework’ (Overview of the Property Framework).
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Executive summary

Overview

The Flexible and Efficient Workplace Design Guidance (the Guidance) is a better practice guide designed to assist agencies subject to the Financial Management and Accountability Act 1997 (agencies) to incorporate efficient and effective workplace design into their accommodation planning which is consistent with the Commonwealth Property Management Framework (Property Framework).

The Guidance looks at key considerations for workplace design, including balancing competing business needs, implementing an accommodation solution, and managing the opportunities and risks associated with the project.

Many of the practices described in the guidance are based on contemporary private sector practices, which have already been incorporated by some agencies. In line with the Property Framework, individual agencies are responsible for their own accommodation arrangements. However, agencies may elect to consider this Guidance when evaluating options and making decisions in relation to their current and/or future work practices.

The Guidance is separated into three parts:

- Part A discusses the objectives of the Guidance and describes some of the main issues related to implementing and managing change in the office environment.
- Part B discusses some of the specific workplace design practices that may assist in achieving more efficient and effective workplace design.
- Part C includes detailed information on workstation types, design standards and a suggested structure for a fit-out manual.

Objectives

This Guidance is driven by the objectives of the Property Framework which include five principles for efficient, effective and ethical property management:1

- value for money
- property management planning
- efficient and effective design
- appropriate accountability measures
- cooperative Commonwealth property management.

In line with achieving efficient and effective property outcomes, office areas should have regard to the Government’s occupational density target of 14m² of Usable Office Area (UOA) per Occupied Workpoint (OWP) when looking at flexible and efficient workplace design. While this requirement applies to properties leased or owned, that contain more than 500m² of usable office area, the Department of Finance and Deregulation (Finance) recommends that agencies follow this principle as a matter of better practice for all office accommodation.

This Guidance highlights the importance of efficient and effective design but also recognises that delivering cultural change, maintaining or improving worker satisfaction and staff retention rates are equally important.

Scope

In line with the Property Framework individual agencies are responsible for their own accommodation arrangements and therefore the use of this Guidance by agencies is not mandatory. This guidance does, however, outline key considerations that agencies may wish to consider as a starting point when designing their workplace and agencies may elect to consider this Guidance in the context of their current and/or future work practices.

Activity Based Working (ABW) and other innovative workplace practices are still developing in the Australian and Australian Government context. This area continues to mature and evolve as lessons are learnt from the implementation of flexible working practices by Australian Government agencies and the private sector.

The coverage of innovative solutions, like ABW, in this guidance reflects that agencies are already thinking outside the square for their accommodation solutions. This guidance promotes a conversation about the possibilities of innovation in property solutions and recognises both the opportunities and challenges in adoption. Cultural change, work/life balance, operational efficiency, getting the most out of technology and moving to more flexible work styles are some of the drivers to open the discussion.
Executive summary of Part A

Changes in workplace design

There are a range of risks and opportunities for agencies when considering change to their workplace design just as there are risks in not adapting to changes in the operational landscape. An opportunity allowing an agency to revisit its workplace design might be a lease ending, a consolidation of space, a Machinery of Government (MoG) change or an organisational restructure. Physical or organisational shifts, like those expressed in the PRODAC occupational density target or Energy Efficiency in Government Operations (EEGO) performance targets can also have an impact.

Churn and change management

Churn or ‘day-to-day’ movement in the Commonwealth is a significant contribution to annual property and maintenance costs for most agencies. The Property Guidelines require that an agency’s property management plan should address staffing level forecasts where possible as well as contingencies to deal with office churn. Churn may necessitate the demolition and construction, or relocation of offices, workstations, meeting rooms and support facilities. If property managers are able to manage churn in a way that reduces the amount of alterations required to the physical office environment, then a reduction in the costs associated with churn may be achievable.

Once a churn load has been identified, it is important to engage with stakeholders and communicate on change management. This will involve identifying those who will be impacted by the change; assessing how they will be impacted, including both positive and negative aspects; explaining the strategic importance of the change; communicating the proposed rate and timing of implementation; and developing approaches to recognising user concerns.

Fit-out selection and other considerations

When investigating a new lease or a new fit-out there will be a range of considerations such as size, location and rent. In selecting accommodation that is appropriate, it is important to assess the suitability of the premises for the intended use and user.
Executive summary of Part B

Workplace design considerations

Workplace design must take into account what type, where and when work is undertaken. Each workplace design solution should aim to accommodate the individual needs and work style preferences of staff. For the best design and management outcomes the design process should be interactive between the senior management of the agency, designers, project managers and the users.

The contemporary workplace

The contemporary workplace needs to be flexible and able to adapt to the growth, movement and changes in operations and technology. Flexible workplaces also need to respond to both the needs of the individual and the employers adjusting to when, where and how tasks are performed.

In Activity Based Working (ABW) flexibility is not only facilitated by the physical workplace for example through setup of offices, fixtures and fittings but also where and how an individual may work on a task-by-task basis. Under ABW an individual’s physical location will depend on concentration/collaboration needs; what team members need to be consulted and in the wider sense, on work/life balance considerations.

Ideas from both ABW and traditional workplace design can be adopted to create a flexible workplace design suited to particular methods of working. There is no one-size fits all approach for ABW or other flexible workplace installations as each application should be tailored to reflect the business model and activities of the agency. A case study from Comcare has been included as a successful, contemporary example of a fit-out that has adopted a mix of both traditional and flexible workplace design.

Comcare represents a ‘hybrid’ solution in the sense that it retains the assigned desking of a traditional-based solution while incorporating the strong support for mobility and collaboration seen in ABW.

Guidance for workplaces

There are many elements that will need to be considered when delivering a typical office solution and these generally fall under three areas:

- the physical solution – the fitout, furniture and equipment of the workplace
- the virtual solution – the technology supporting communication and mobility in the workplace
- the organizational and management solution and the workplace culture they underpin.
Executive summary of Part C

Workpoint solution examples
The guidance looks into several workpoint solutions analysing rectilinear (180 degree, 90 degree, 120 degree), jelly bean, storage spine, and free-form options. The workpoint solutions also look at focused and collaborative workpoint examples such as office booth/enclosure products. These are of particular value in a flexible work environment but may also have applications in more traditional configurations.

Office design standards and codes
Office fit-outs must comply with a range of codes and standards. These codes can be divided into two parts: legislative and non-legislative. Legislative requirements are enforceable by law and must be adhered to. Non-legislative requirements can be used to optimise design and offer the end user an enhanced, well thought out workplace.

Fit-out manual structure
Appendix C is a brief framework of possible physical features that might be covered in an agency fit-out manual. Agencies should collaborate with their design teams on developing briefs for individual projects, however the fit-out manual structure in Appendix C contains a starting point on the usual functional provisions in accommodation.

Case studies
Four case studies are also included in this section from the Department of Human Services, the Department of the Prime Minister and Cabinet, the Australian Tax Office and Comcare. Each of these case studies provide different approaches to a successful, flexible workplace design that agencies may find useful to draw from when undertaking their own workplace design.
Some of the terms used in this guidance such as ‘Usable Office Area’ and occupied workpoint have particular, closely defined meanings in the Australian Government Property Data Collection (PRODAC) which may differ in important ways to generally accepted industry or general-usage terms. In this Guidance the PRODAC definitions can generally be assumed to apply, particularly where measurements or counts of areas, occupants and workpoints are discussed. The Glossary at Appendix E of this document identifies many of these terms.

**Note:** The difference between how PRODAC measures people and areas, and the methods of measurement used in other references can make comparisons between studies difficult. Non PRODAC measurements often have different, or perhaps unstated, assumptions about what a person or an ‘area’ includes. For example, occupancy figures quoted for Commonwealth Bank Place (CBP) are based on the number of people assigned to the building divided by the Net Lettable Area (NLA). For CBP, which is an ABW property, there are more people than workpoints. On the other hand, a PRODAC based measurement of people is based on a survey of physical presence plus signs of life at workpoints at a point in time. Therefore, the number of people and the rate of occupancy for CBP would be significantly lower under a (hypothetical) PRODAC count.²

Part A

Change management
A.1 Changes in workplace design

There are a growing number of flexible accommodation solutions being developed by the private sector that challenge traditional workplace design philosophies. New technologies are breaking the link between a fixed workstation and a worker and organisations are looking to best maximise the positive outcomes from implementing flexible workplace design.

A.1.1 Benefits of change

Some of the benefits for agencies in changing their workplace design include:

- redefining workplace culture to increase collaboration, productivity and worker satisfaction
- using space more efficiently which can reduce property costs and assist in meeting the Government’s occupational density target
- optimising flexibility and mobility to support teleworking and churn management
- environmental benefits related to reducing the size of the Government’s property portfolio and teleworking thereby reducing energy consumption and emissions
- meeting heritage obligations and demonstrating best practice in this area.

A.1.2 Opportunities for change

Accommodation relocations and updating fit-outs may present an opportunity to introduce cultural change. For example, when designing and developing the Caroline Chisholm Centre in Greenway, senior executives of the Department of Human Services (DHS) had a clear vision of using the design of the new building as a way of improving communications between work groups and allowing management to be more accessible to employees and vice-versa.

Similarly, the Department of the Prime Minister and Cabinet (PM&C) wanted the design of their new head office in Canberra to enhance interaction and communication within the organisation. This was achieved in part by including an open central stair as the main hub for internal movement with meeting rooms and break-out spaces located around this hub. This arrangement maximised opportunities for informal interaction and casual communication enhancing the collaborative culture of the organisation.

A.1.3 Drivers of change

The DHS and PM&C case studies at Appendix D demonstrate the importance of senior management driving cultural change. If senior managers are not fully engaged and instead delegate the task solely to property officers, substantial innovation and real cultural change is more difficult and less likely to occur.

Figure 1 illustrates the responsibilities at each level of an organisation to change workplace culture. Stakeholder engagement across the organisation is vital in delivering best-fit accommodation solutions that address user needs and ensure user buy-in to the cultural change process.

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3 Some of the environmental impact is linked to office area (e.g., air volume for air-conditioning) and some portion is related to the number of occupants (e.g., the number of monitors, the number of bodies and their heat load). Therefore the environmental impact may not be directly proportional to any change in office area. Conversely teleworking has a disproportionately high environmental impact by removing commutes and workplace presences. In summary, environmental efficiencies are not solely area-dependent.

4 refer to Case Study No. 1 at Appendix D of this Guidance.

5 refer to Case Study No. 2 at Appendix D of this Guidance.
Figure 1 - Responsibilities at each level of an organisation

Note: the illustration is generic and is not intended to reflect a particular agency structure.

A.1.4 Surplus space generated by change

Where a change results in surplus office space for an agency, the agency may, as a first priority, attempt to sub-lease this space or assign the lease to another agency to avoid the costs associated with approaching the commercial market.

To enable agencies to advertise excess space or notify agencies that they are seeking space, an accommodation register has been listed on GovDex. Finance has also developed leasing, sub-leasing and lease assignment guidance documents and memoranda of understanding to facilitate these arrangements.

The stakeholder engagement process must give users the opportunity to participate in and have a real effect on decisions about the new workplace and its culture. In addition, there must be ongoing mechanisms to track emerging user issues and usage patterns and to develop and maintain operating protocols.

A.1.3.1 Machinery of Government changes

Unlike commercial enterprises, agencies can be regularly subject to changes in government structure and priorities. Larger changes reflect shifts of responsibility across agencies or a new responsibility being assigned in the case of Machinery of Government Changes (MoGs).

MoG changes can result in expansion or contraction pressures on accommodation. Effective planning for potential MoG changes is crucial to limit the potentially significant costs including those related to transferring employees and assets between agencies and starting, ending or transferring lease commitments. Senior managers involved with the management of MoG processes for a particular agency (including Administrative Arrangement Orders) should therefore inform property managers as early as possible on agency structure decisions effecting property.

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6 These documents are available on GovDex which is an Australian Government Website that supports collaboration across agencies. GovDex can be accessed at www.govdex.gov.au.
A.2 Churn and change management

Churn in the Commonwealth is a significant part of annual property and maintenance costs for most agencies. Major contributors to these costs are often associated with the demolition, construction or relocation of offices, workstations, meeting rooms and support facilities. If property managers are able to proactively manage the amount of alterations to the physical office environment required when churn occurs, then a reduction in the costs associated with churn may be achievable.

For the purpose of this Guidance, churn refers to the physical relocation of assigned occupants between workpoints within accommodation.7

The Commonwealth Property Management Guidelines (the Property Guidelines) require agencies to address staffing level forecasts in their property management plans where possible as well as contingencies to deal with office churn.

The Property Management Planning Guidance (the Planning Guidance) also suggests that agencies examine their future property needs including an assessment of the likely level of churn, how it will be managed and the associated costs.8

A.2.1 Causes of churn

The factors that generate churn in accommodation are many and varied including:

- demand for accommodation, e.g. recruitment, retirement or taskforces
- supply of accommodation, e.g. lease ending or the impact of a natural disaster such as major flooding
- predictable factors with long lead times or predictable cycles, e.g. a staff retirement, a lease ending, or a regular national census
- unpredictable factors with variable lead times, e.g. an election declaration, a natural disaster reaction or a MoG change
- projects with a short life span, e.g. a taskforce or a disaster management response
- areas with long-term stability that might not carry much spare space, e.g. a legal section with significant storage requirements.

The scale and timing of churn loads will determine whether churn management involves a solution within existing accommodation resources or whether it is necessary to look further afield. The impact of churn on agency operations and service delivery will depend on positioning for and managing these and other variables.

7 Also see definition of churn rate in the Glossary (Appendix E).
A.2.2  **Understanding churn**

The starting point for agencies in positioning for and managing churn is to understand their own business accommodation demands, patterns and challenges. PRODAC data can assist agencies in tracking their occupancy patterns from year to year. Some agencies already understand and track their own occupancy patterns and churn as part of building their own knowledge base. Other agencies should study and develop an understanding of their own operating churn rate/s and understand which parts of their operations are relatively stable and which parts are volatile and subject to churn.

Agencies should feed their churn analysis back into their property management plan and this information, together with costs, should be made available to relevant senior management to control the extent and consequent cost of any rearrangements or refurbishments triggered by churn. Churn issues are different at agency, building, group and team levels, and agencies should be cautious of applying an average churn rate as individual operations may vary markedly within an agency.

A.2.2.1  **Over-providing for contingency**

There may be a tendency for agencies to try to address churn stresses within existing property resources. Short term accommodation in particular can be expensive so it is usually preferable to accommodate churn within an agency’s existing property resources.

Another problem with the approach of managing within existing resources is that agencies may tend to over-provide accommodation to position themselves for a possible accommodation load. This approach may result in the provision of spare space that may make it difficult for an agency to meet the Government’s 14m² occupational density target. If that accommodation load does not materialise there is also a risk that agencies are effectively over-catering for flexibility at the expense of efficiency.

A.2.2.2  **Under-providing for contingency**

Agencies might also attempt to attain a nil vacancy level in their properties. This may appear to be a natural target as it provides 100% efficiency but property managers will be aware that a fully occupied property also has no flexibility. That is, even a single new officer could not be accommodated without physical changes in a fully occupied property.

A.2.2.3  **Balanced approach to vacancy**

In reality agencies should examine their operations in detail and take a balanced approach to vacancy. In the traditional environment agencies should provide an operating vacancy within properties. The level of that vacancy should aim to suit the volatility of the group or groups in a property or part of a property. A very low vacancy rate might suit a very stable area while a more volatile area might be better suited by a higher operating vacancy rate.
A.2.3 Other churn positioning and management strategies

There are a range of other possible considerations for agencies in positioning for efficiently and effectively managing churn which are discussed below.

A.2.3.1 Modular systems

There are flexibility benefits available from a modular approach to accommodation which are illustrated in Case Study No. 1 (Appendix D). In this example the Department of Human Services (DHS) had the need to churn 300% of its people in the Caroline Chisholm Centre in a 12 month period (i.e. during the Medicare, Centrelink and DHS consolidation). The churn was achieved without moving a significant number of workstations, and in a four year period only 10 new offices were constructed. This low amount of physical rearrangement was largely due to the use of modular standardised partition systems, workpoints and furniture.

The DHS example demonstrates that the implementation of a generic floor-plan for office layouts and the use of standardised furniture that is interchangeable will contribute to flexible workspaces that readily allow for change. Work areas should also be designed to allow for easy reconfiguration to accommodate additional people with minimal disruption and within very short timeframes. Both the area losing an occupant and the area gaining that occupant should be able to readily facilitate the movement. This will contribute to minimising future churn costs and therefore creating savings for the agency (refer to Case Study No. 2).

In considering workstation standardisation, agencies should bear in mind that over-standardisation of workstations and partitions have the potential to lead to a bland work environment. Professional design support can assist agencies to deliver a varied and lively workplace while maintaining a good degree of standardisation.

A.2.3.2 Stakeholder engagement

Once a churn load has been identified, it is important to engage with stakeholders on change management. This will involve identifying those who will be impacted by the change, assessing how they will be impacted (including both positive and negative aspects), explaining the strategic importance of the change, communicating the proposed rate and timing of implementation and developing approaches to recognise user concerns and increase confidence in the change.

A.2.3.3 Reviewing the process

Following the completion of a churn project, the agency should review the process and identify areas for improvement in terms of:

- timing
- communication
- user satisfaction
- successful and less successful outcomes.

As part of the assessment, agencies may choose to develop feedback forms and frequently asked questions. Agencies may also consider engaging professional design consultants to assist with such a process.
A.3 Fit-out selection and other considerations

When investigating a new lease or a new fit-out there will be a range of considerations such as size, location and rent. In selecting accommodation that is appropriate for its intended use and users, it is also important to assess the suitability of the premises for the likely fit-out solution.

A.3.1 Property selection

The level of efficiency that agencies are able to achieve in their office accommodation may be substantially influenced by the efficiency of a particular building’s floor plate including the:

- overall floor plate size
- floor plate shape and orientation
- location and disposition of service cores such as lifts and escape stairs
- arrangement of columns and other building support structures.

In assessing how efficiently a space can be occupied an agency may provide a leasing agent with anticipated staff numbers and facility requirements. Leasing agents may agree to provide an indicative fit-out drawing from the building owner’s architects that will illustrate how efficiently the agency will be able to occupy the space offered. Alternatively, the leasing agent might be able to provide a more generic example of how the floor plate can be utilised that would also be suitable for other agencies. This conceptual investigation will aid in achieving an optimum office layout.

A.3.1.1 Base building design

In base building design, clear, open, regularly laid out floor plates will generally deliver an efficient floor plate for a mix of open plan and enclosed offices. As an example, a 25 metre wide floor plate will deliver 90% of the floor within 12 metres of a window for natural light and views. A 25 metre floor plate may also allow an office ‘built zone’ to be constructed in the mid-span zone of a floor.

As another example, it may be appropriate to consider the use of 16 metre wide floor plates where natural ventilation is being considered. The Green Building Council of Australia’s Green Star rating tool suggests 90% of a floor plate should be located within 8 metres of a window in this case. 16 metre floor plates would tend to locate office built zones to one side of the floor.

Other factors to consider in regards to a base building’s suitability include:

- whether workstations are likely to be kept clear of windows for security reasons
- ceiling heights, in particular where modular partitioning is envisaged
- the spacing of column grids directly against the envisaged workpoint/desk size where a size is known.

Generally, the larger the floor-plate the easier it will be to achieve an efficient office layout although other factors such as non-rectilinear shape or inconsistent column placement may also impose significant limitations.\(^{11}\)

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Agencies should note that a few odd angles need not rule out a particular floor plate. Corner areas may suit hub spaces or conference rooms and a designer can assist to help maximise the use of these spaces. In Comcare extra space, arising from atypical floor plate zones, has been used to establish popular booth style meeting facilities. Some relief from a rectilinear layout may also facilitate a lively environment, as evidenced by the Caroline Chisholm Centre, Greenway, Canberra (see figure 3).

A.3.1.2 Floor plan examples

The following floor plans illustrate office buildings of differing sizes, but they all have efficiently designed floor plates that are easy to plan for an open office environment.

A five storey 8,700m² office building

*Figure 2 - 21 Brindabella Circuit, Brindabella Business Park, ACT*

21 Brindabella Circuit, Canberra has 25 metre wide floor plates that have the service core and stairs removed to the outside of the building leaving a clear open 1,500m² floor that can be configured in different ways to suit a range of tenancy types. The four storey building is occupied by an agency which has both an open plan and a large number of enclosed meeting rooms.
Large low rise with main street (Floor area is 45,000m² over 4 and 5 levels).

*Figure 3 - Caroline Chisholm Centre, Chisholm, ACT*

The Caroline Chisholm Centre is a 4-5 storey office building that is occupied by DHS. The building has an NLA of 45,000m² that includes a ground floor main street. All building services are located in the main street spine providing activity in the centre of the building while allowing large unencumbered office space that can be configured in a range of ways. This building demonstrates the flexibility that large floor areas free of service rises can provide. Each wing of the building is 25 metres wide and has an area of 3,750m².

Small low rise (Floor area is 3,000m² over 2 storeys)

*Figure 4 - Emergency Services Agency, Fairburn ACT*

The Emergency Services Agency building is a small office building with an NLA of 2,800m². In this building the building cores are located at each end of the building with an atrium space located to the south. The building demonstrates the potential flexibility that can be achieved through large clear floor plates, and in a small 2 storey building the added flexibility that can be derived from large column free spaces on the upper floor.
This plan shows a well thought-out high rise building where the service and lift shafts are located eccentrically on the floor plate providing space for large open plan fit out on one side and shallower areas on the other that can accommodate enclosed spaces such as meeting rooms.
A.3.2 Heritage buildings

The Commonwealth owns a number of heritage listed buildings which are occupied by a range of agencies. Generally, the Government must continue to retain and utilise these buildings and disposal or fully commercial leasing is usually not an option. However, to put this in perspective, it is important to understand that:

- Heritage properties provide a small proportion of the Commonwealth’s total usable office area at around 3% of PRODAC reported property.\(^{12}\)
- PRODAC data on heritage properties demonstrates that they are comparable in performance with non-heritage properties in terms of occupational density.\(^{13}\)

While heritage properties have some idiosyncrasies and limitations such as less clear, open space, PRODAC reporting shows that the 14m\(^2\) occupational density target is achievable in heritage properties.

Typically, a conservation management plan (CMP) is required for any building of heritage significance. The CMP provides guidance for new works proposed in a heritage building in order to protect areas or elements with sensitive value. Often these elements can be treated in such a way that they become a focal point for the design.

A.3.3 Energy efficiency – NABERS/ Green Star ratings

Government has set minimum energy standards for leased office accommodation and these are set out in the former Department of Climate Change and Energy Efficiency’s ‘Energy Efficiency in Government Operations’ (EEGO) policy.\(^{14}\)

The main requirement is that agencies meet a minimum 4.5 star National Built Environment Rating System (NABERS) rating for both base building and for the fit-out.

An agency should review their records for documentation provided for the fit-out by the service engineers and the fit-out architect/designer to establish the NABERS rating. If the information is not found in that documentation the building owner’s services engineer and the fit-out architect’s engineer will be able to provide advice on the base building and on the fit-out respectively.
A.3.4 Health and working environment considerations

It is estimated that we spend 90% of our lives indoors. An agency should consider this when designing an office environment so that it supports openness, transparency and innovation. There are a range of office environment Key Performance Indicators (KPIs), including:

- air quality / temperature and comfort
- lighting / natural lighting / artificial lighting / glare versus gloom
- balance of privacy / interactability options
- distractions, including physical, visual and sound
- acoustics / separation and intra office noise
- ergonomics / customisability
- aesthetics / environment stimulation level
- outlook / views.

One of the recurring complaints of government office users, particularly in older office fit-outs, is of poor thermal comfort or air quality. Some of these complaints may be attributed to churn related changes to the office layout, which might have added workstations and computers without adjusting the air-conditioning systems. It should also be noted that open plan work areas require a free-flow of air around workstations, and if replanning compromises the air-circulation then performance may suffer and complaints may follow.
Part B

Designing a flexible and efficient workspace
B.1 Workplace design considerations

An adaptable workplace should be designed with the flexibility to accommodate an agency’s changing operational needs, as well as the work style preferences of individual staff including the physical location within the organisation as well as times of work.

Workplace design must respond to the type of work that an agency undertakes and where it is undertaken. The workplace should include spaces to support work where a high level of collaboration and interaction is necessary and where more focussed individual work is undertaken with the introduction of individual desk spaces, collaborative spaces and meeting spaces. It is also important that the physical accommodation solution is supported by appropriate technology.

Agencies may find it useful to separate their property into core and flexible spaces. Core elements may include the agency’s executive and other corporate support functions. The flexible element would include operational areas that need to respond to the policy and delivery tasks that Government requires and changes in needs driven by MoG changes.

B.1.1 The workplace design process

When the feasibility and overall scope of an accommodation project is confirmed, the selection of the property is complete and tenure is secured, agencies can then engage designers to undertake the fit-out process.

Successful building projects progress through a sequential process from inception to completion, and this is described in figure 6.

For the best design and management outcomes the design process should be interactive between the senior management of the agency, designers and project managers. Workplace design should also balance the efficient use of space in accordance with the Australian Government’s occupational density target with the provision of as much flexibility as possible to react to accommodation supply and demand fluctuations.
Prior to the engagement of design professionals and the commencement of work, a meeting with all stakeholders is recommended. As senior management are aware of the direction the agency is heading and the culture of the agency, they will have firm opinions about the course of the design/works and should certainly be involved. The agency may require a client representative Project Manager to coordinate the project.

Different design professionals – the most common examples are Architect, Interior Designer, Electrical Engineer, Mechanical Engineer, Fire Engineer, Communications Engineer, Hydraulic Engineer, Structural Engineer. Possible engagement of a Project Manager to form part of the team to oversee the project. Larger projects may require a Quantity Surveyor and/or Site Surveyor.

Defining the objectives, scope and requirements of the project. Objectives are usually recorded by the client and issued to the design professionals ensuring there is no misunderstanding of what is required. The design professional will consider a creative approach, based on the objectives and requirements to move forward. It is recommended that senior management are involved in this process, enabling their input with regard to the direction of the design works and the agency.

Preliminary Design - Preliminary Sketch Plans (PSP's) – Initial translation of the design brief will usually result in several options being presented, and from these a ‘preferred option’ is usually adjusted to produce the best solution. Final Design - Final Sketch Plans (FSP's) – The preferred option would be improved to reflect the best solution and presented to the client. Once satisfied, the client will sign off on the FSP and this will trigger the commencement of the documentation phase for the construction of the space by the design professionals. It is recommended that senior management are involved in the milestone presentations to see that the direction of the design/works and the agency has been clearly interpreted and represented in the design.

The documentation for the construction of the space is produced. During this phase there is coordination of all design professionals’ documentation. The documentation will be delivered according to the type of construction procurement (managing contractor, design and construct, etc).

Construction Phase of the space. This includes Project Coordination Group (PCG) meetings which usually occur weekly or fortnightly throughout the Construction Phase and involve the client, designers, engineers, project and construction managers to ensure the project is running to target.

Undertake an assessment around one year after construction and installation of these spaces. This could be facilitated through the use of surveys, interviews, ‘town hall’ type meetings, staff workshops, business unit representatives’ meetings, etc.
B.1.2 Timing of design changes

Figure 7 shows the relative cost of decision making during a project and the importance of making key decisions at an early point in the design process. The diagram shows that making a design change at the early stage of a project is less costly than the cost impact of making a design change later in the project (e.g. at tender stage or during construction).

It is best practice for fit-out decisions to be considered and agreed during the design phases as changes after that will involve additional professional fees arising from changes in contract documentation. Changes late in the overall process will not only incur construction cost variations, but also costs arising from construction delays.

On large projects where changes in scope may be inevitable because of the duration of the project, these should be planned to happen at discrete points in the design or construction, so that a group of changes can be made in batches rather than as a continual stream of changes that would attract higher costs.

As illustrated in figure 7, the cost of making changes to a project increases with time as the opportunity to make changes diminishes.

Figure 7 –Timing of design changes
B.2 The contemporary workplace

B.2.1 Contemporary flexible work environment

The contemporary workplace needs to be flexible and able to adapt to the growth, movement and changes in operations and technology. Flexible workplaces also need to respond to both the needs of the individual and the employers to make changes to when, where and how tasks are performed.

The ease with which the workplace can be modified will be made easier by adopting principles of universal sizes for offices and workstations. This Guidance encourages the use of a modular approach to office planning to provide flexibility for changes in function, movement or organisational growth with minimal disruption over the life of the office fit-out. Spatial planning is a tool that allows for movement of people, workstations, furniture and joinery, and enclosed spaces which can also be useful in designing a contemporary workplace.

Figure 8 shows that modular and equal spaces for all employees can provide for the efficient movement of staff and functions within an organisation, and conversely the disruption that can be caused when staff have different space entitlements. Disruption of this type has a significant impact on the cost of implementing staff of functional changes within an agency.

In the modern workplace, joinery and furniture need to be easily adapted to allow for changes in demand and use. This Guidance and the adoption of ABW style environments encourage the adoption of a clean desk policy for agencies that will lead to a reduction in the use of paper with the consequent reduction in the need for office and team storage.

It should be noted that while ABW is discussed in detail in this section, ABW is just one option in a range of flexible and contemporary workplace philosophies which private sector organisations are adopting to enhance the workplace.

Some other examples include:

*Biophilic design*

Biophilic design draws inspiration from nature, creating a connection to the outdoors using natural objects, elements, materials, forms and patterns as a vehicle for design.

*Agile working*

Agile working provides an environment, which has a (complete or high) level of flexibility with desking, storage and room/area dividers on castors/wheels. This allows the workplace environment to be moved and altered to bring people, processes, connectivity and technology together. Creating a workplace in which tasks can be undertaken in an environment with no set boundaries in how tasks can be achieved.

*Co-working*

Co-working is a style of work that involves a shared working environment, bringing people, process, connectivity and technology together. A co-working environment has a host, who is responsible to create connections and introductions with the users. A co-working environment is often similar to an agile workplace, offering a high level of flexibility to allow the environment to be adjusted and altered to suit all users.
B.2.2 Contemporary workplace design considerations

In the contemporary workplace, improved information and communications technology (ICT) and increased choices in desking systems have made a new form of open plan office design and emerging ways of working like ABW viable. These developments have led to two pathways emerging in contemporary office design based on:

- predominantly assigned desking; or
- predominantly non-assigned desking.

The private sector has been at the forefront of recognising that people want to work in different ways and may spend up to 65% of their work time away from their assigned desk.16

This has led to the increased provision of alternate spaces in contemporary workplaces like free-form break-out spaces, screened lounge style booths and quiet rooms. In the context of the Australian Public Service, there has been a gradual reduction of enclosed offices for employees other than senior executives. This has contributed to enhancing communication, employee engagement and information sharing.

The term ‘flexibility’ is changing and adapting with the evolving workplace. Flexibility is no longer just defined for the workplace offices, fixtures and fittings. Flexibility is now also defined by when, where and how people work. Core workplace principles are being challenged, and are evolving and adapting with current needs.

Where people work is becoming a matter of personal choice generated by work-family/life balances, technology and so on.

B.2.2.1 Key aspects of flexible workplace design

When designing a flexible workplace solution, the following aspects should be considered:

When people work:

- flexible working hours
- part-time or job sharing arrangements
- variable year employment such as changing work hours over the month or throughout the year depending on the job demands
- part-year employment or purchased leave allowing employees more flexibility with annual leave.

Where people work:

- working at the office desk or in meeting rooms
- working in a variety of locations within the office building, central communication hubs, quiet or concentrated-work rooms, or in a cafe where appropriate
- working from home (teleworking) either on an occasional, part-time or full-time basis
- working remotely from another office of the agency where it has multiple buildings, or a client’s workplace etc.

How people work:

- job sharing
- phased retirement
- annualised hours such as defining a set number of hours to be worked per year rather than the number of hours to be worked per week
- proximity requirements to people, places, things, etc
- locality to specialised equipment
- levels of concentration
- levels of discussion/collaboration.

The challenge for managers is to accommodate a diversity of work locations while creating a team based environment, and manageable and productive employees. A range of work opportunities then provides the accommodation managers with the challenge of ensuring that an agency’s office accommodation is used effectively and efficiently.

B.2.3 Activity Based Work Practice (ABW)

ABW is a contemporary workplace philosophy which promotes a more flexible work environment, including workplaces that are away from the normal office and those that aligns workers with tasks rather than aligning workers with assigned fixed workpoints.

B.2.3.1 Key features of ABW

In ABW, flexibility is not only facilitated by the physical workplace such as offices, fixtures and fittings but also, where and how an individual may work on a task-by-task basis. Under ABW, individuals choose where they are located based on which work setting is most suitable for undertaking their work and the tasks they want to perform. The location will depend on concentration and collaboration needs, which team members need to be consulted, and broader issues such as work-life balance considerations.

Some organisations have introduced the ABW concept of a ‘home zone’ which is a designated area where project teams can gather and work. Within this ‘home zone’ individuals are able to choose where they wish to work which allows for cross-fertilisation within project teams as well as whole-of-office communication.

A team member will generally sit with their team during the day but may move to another location depending on the particular task.

In an ABW fit-out, collaborative spaces are generally located on the fringes or spaces between ‘home zones’. This maximises the opportunity for collaboration within a project team as well as potentially at the higher whole-of-floor, office and organisation levels.

ABW also recognises and supports work outside the office. This might be from home, a client’s premises, and so on. This opens up a new degree of flexibility for workers allowing them to shape their work and commuting patterns to maximise their work-family/life balance. It also raises new challenges for supporting workplace structures including virtual, security and organisational structures.

B.2.3.2 Advantages of ABW and flexible workplace design

The ABW workplace offers a range of standard and innovative workpoint options. The benefit of an ABW workplace is that it allows the traditional office environment to become more flexible, linking different spaces to different tasks. Some other advantages of ABW include:

- the economic and environmental benefits from more efficient use of space
- a greater ability to meet the Government’s occupational density target
- an increased ability to handle particularly small to moderated size churn events over traditional office design approaches
- greater staff satisfaction, reduced absenteeism, and increased productivity
- increased ability to attract and retain staff
- wider and more effective collaboration and communication and increased information sharing
- a more dynamic and enlivened workplace that aligns better with tasks
- decreased energy consumption and environmental impact through reduced commuting where teleworking is incorporated.
B.2.3.3 Hidden vacancy and the potential for ABW

Figure 9 illustrates research undertaken by DEGW consultants\(^\text{17}\) on the rate of occupation of workstations in a traditional private sector office.\(^\text{18}\) The diagram illustrates how a static office desk is usually only occupied for about 35 – 40% of the day. Having no assigned desking may contribute to reducing the overall building/fit-out footprint, therefore reducing the total space requirements for the agency, energy usage, resources and operating costs.

**Figure 9 - The rate of occupation of workstations in a traditional private sector office**

The low level of occupancy seen in the figure 9 mirrors similar studies by Steelcase in the USA and surveys undertaken by Daryl Jackson Alastair Swayn Pty Ltd at DHS prior to the design of the Caroline Chisholm Centre.\(^\text{19}\) These surveys show a low level of real occupancy of workpoints through a typical workday and support that ‘hidden vacancy’ can be made available in the more agile ABW accommodation model.

B.2.3.4 Implementing ABW

The implementation of a flexible style of working and the appropriate use of technology are two key factors which will influence its success. The transition from a traditional, assigned desk workplace to a new working environment should have a ‘whole-of-office’ input driven by an understanding of working styles, known constraints and significant consultation, rather than being driven only by senior management.

Appropriate technology must be implemented to support employees working from any location within a building and, ideally offering options for working outside the traditional workplace. For example, an ABW flexible environment may include a secure wireless network with additional hard network connection points to all office areas to support portable devices.

Saturation of cabling for a high level of hard wire network access options also allows staff to log onto telephone systems from any location in the workplace, enabling the flexibility envisaged by ABW through the use of fixed line programmable telephones or Voice over Internet Protocol (VoIP) systems. ICT is a central enabler of flexible working environments like ABW. As such, it is important that an agency’s ICT group is closely consulted in the development of any proposed fit-out design.

To support the mobility involved in ABW non-assigned desking lockers and/or caddies are usually provided for employees to store their personal use items and belongings.

A clean desk policy is beneficial in both traditional and ABW implementations. In traditional environments, clean desk policy helps secure and paper use reduction. In ABW, it does this and it underpins physical mobility.

In Australia, ABW has been adopted by major private sector institutions such as banks (e.g. Commonwealth Bank of Australia), investment banks (e.g. Macquarie Bank), and commercial real estate entities (e.g. Jones Lang LaSalle). Another example of ABW being implemented is GPT Group’s Sydney office in the MLC Tower. Below are some images of the fit-out.

\(^\text{17}\) DEGW for Haworth design research, DEGW Report: The Impact of Change & Haworth’s Always workstation, 2007, [http://www.haworth-asia.com/Products/private-office/storage/Pages/always.aspx](http://www.haworth-asia.com/Products/private-office/storage/Pages/always.aspx)

\(^\text{18}\) The terms ‘occupation’ and ‘occupancy’ in this discussion are not the same as in PRODAC. In this discussion, each single ‘occupation’ is a physical presence of an individual at a physical workstation with counts being carried out through the day. The major differences to PRODAC occupancy is that these counts do not include counts of ‘signs of life’ while PRODAC occupancy includes physical presence and ‘signs of life’ (refer to the PRODAC Specifications).

\(^\text{19}\) [http://www.steelcase.com/en/Pages/Homepage.aspx](http://www.steelcase.com/en/Pages/Homepage.aspx)
ABW implementations, for example, generally include some variant of a ‘home zone’ structure. Home zones aim to provide an anchoring identity at the team level rather than at the individual or individually assigned desk level. This is intended as a balance against the removal of the security of a personal assigned ‘territory’ as in the traditional assigned workstation. In this example, as with most others, it is hard to see that this level of support for unassigned desking could be omitted.

B.2.3.5 ABW and cultural change
An ABW introduction is an opportunity to reset workplace cultures or, where multiple organisations are merged as may occur under a MoG change, bring together established workplace cultures and transform them. Cultural change allows technological advances and mobility to be fully embraced, silos can be broken down, collaboration can be enhanced while physical and hierarchical/status-based structures can be moved out of the centre of organisational concerns.

B.2.3.6 Reducing risk by prototyping
There is an opportunity for agencies to introduce ABW by prototyping. Introduction by prototyping reduces the risk of a failed implementation because a prototype with implementation problems can be modified, learned from, or in the worst case rolled back without prohibitive losses or time penalties for agencies. There is also a possibility that smaller agencies can learn from the experience of larger agencies introducing ABW.

Agencies should note, however, that prototyping is different from partially implementing ABW. The success of implementing ABW relies heavily on its supporting structures including stakeholder engagement from the outset through to the operational phase of the implementation, technology that supports mobility, and having a mix of quiet and group spaces.
B.2.3.7 Issues in adopting ABW

There are a number of possible concerns in adopting ABW that may need to be managed. Some of these concerns and a discussion on each follow below:

- **The perception that ABW is just a cost cutting exercise and/or an exercise in cramming people into less space to meet the government’s occupational density target.**
  
  Leadership must understand and communicate the cultural change that is involved, and address the advantages and disadvantages involved in adopting ABW. Advantages for staff, such as the flexibility and work/life balance advantages of ABW can be emphasised. Perceived disadvantages should be brought forward in appropriate forums and discussed openly to maximise buy-in.

- **The perception that the supporting mechanisms of ABW may make it an expensive option.**
  
  While there are definitely supporting structures that need to be in place for a successful ABW implementation, there are also numerous savings and benefits including lower outgoings associated with greater space efficiencies and meeting the occupational density target while creating additional amenity for staff.

- **Concerns regarding loss of personal space and workpoint ownership.**
  
  Ownership of a workpoint can provide a sense of security and belonging to employees and this area comes up consistently on lists of occupants’ concerns. One way of mitigating this concern in an ABW environment is the inclusion of home zones which create a space that provides a sense of belonging to occupants. Meaningful stakeholder engagement throughout the implementation of ABW practice is also important.

- **Concerns regarding crowding, noise, and privacy issues.**
  
  These concerns arise in both ABW and traditional offices, however, ABW does increase densities so these considerations may be heightened concerns in ABW adoption. Extensive consultative processes, the use of prototyping and good physical design should address this in both traditional and ABW solutions.

- **Concerns regarding workpoint availability.**
  
  While ABW relies on hidden vacancy (workpoints that are assigned but unoccupied) it is still real vacancy.

- **Unassigned desking and staff mobility, including teleworking, will make supervision and staff management difficult.**
  
  ABW does raise issues for how employees are supervised and managed. Potentially there could be a loss of team cohesion or uncertainty for managers where ABW changes what it means to be ‘at work’. The introduction of flatter management structures may be part of the cultural shift intrinsic in ABW introduction. Prototyping also allows alternate structures and systems to be tested that ultimately can be deployed more widely.

B.2.3.8 Hot–Desking

The hot-desking work style philosophy, which is also known as ‘hotelling’ or ‘free-address’ spaces, has historically been adopted by organisations whose staff spend a high proportion of their time out of the office. Rather than providing a workstation for each individual, organisations provide a smaller number of workpoints, which staff could book as needed and which are equipped with a computer and phone.

Hot-desking was widely used in the 1990s, with IBM at Darling Harbour in Sydney being one of the first implementations in Australia. It provided efficient and effective office accommodation but the fact that it was instituted in environments where high proportions of staff often spent much of their day in their clients’ offices began to indicate some of the limitations of hot-desking. Issues with hot-desking such as employees becoming territorial and assuming their selected desk as being permanent started to become apparent in many workplaces. This was especially a problem for employees who arrived in the office later to commence work.

Over time, an understanding has developed that non-assigned desk workers have to be supported and refinements have brought these supporting structures together under the industry term of ABW.
The main points of difference between hot-desking and ABW are:

- ABW is heavily supported by the physical, virtual and management environments
- there is a high level of customisation of ABW to each business model, rather than a ‘one size fits all’ approach
- ABW features active stakeholder engagement featuring user feedback structures from inception through to the operational phase of the implementation
- technology that securely supports mobile work. This is sometimes linked to issuing mobile electronic devices and supporting work outside the office i.e. teleworking
- physical design that is diverse with an array of workpoint options.

Whole-of-organisation hot-desking, as described above, is not promoted by this Guidance. Where a hot-desking installation, is discussed later in this Guidance the reference is to a limited grouping of workpoints, such as a bank of touch-down spaces for visitors or contractors, rather than an installation for whole teams, groups or organisations.

### B.2.4 Space allocation

Office design has been moving away from the cellular work plan with a relatively high area per person to the emerging model of an open plan, non-territorial working environment that is associated with a highly efficient use of space.

The ABW style workplace is now challenging the open plan working environment by increasing efficiency and flexibility. Four styles of workplace design are illustrated in figure 11.
**Figure 11 - The modern workplace, a shift in thinking**

Diagram definitions:

- **Cellular Work Plan** is a workplace environment which is driven by individual enclosed offices with a closing door.

- **Open Work Plan Office Driven** is a workplace environment which has a higher percentage of enclosed individual offices than individual open plan workstations.

- **Open Work Plan Workstation Driven** is a workplace environment which has a higher percentage of individual open plan workstations than enclosed individual offices.

Figure 11 shows how the proportion of space dedicated to particular individuals has diminished with the evolution of unassigned desking solutions like ABW, while the proportion of communally available space has increased. This reflects the cultural shift toward more emphasis on collaboration, mobility and flexibility in the workplace.
### B.2.4.1 Social density considerations

Social density or occupational density that is too high may lead to increased levels of stress for workers and as the number of people per room increases, overall work environment satisfaction decreases. A high social density, which is a low occupational density figure, causes greater distractions and the greater number of relationships to maintain that may contribute to stress. Research has also indicated that effective task performance drops as the number of people in an office increases. It has also found that workers with mental illness perform better and feel greater stability if working in smaller groups and have quiet areas to which they are able to retreat.

The modern team-based workplace should be an environment for office workers to feel committed, inspired and energised which can respond to social and technological changes and offer a variety of work settings to support different modes of working. A modern workplace should allow office workers to retreat from the team space to one of the following three primary working areas at any time:

- **low social density area** - A work environment such as a quiet room or enclosed space, which can be used for concentrated individual work requiring highly creative thinking and/or innovative technical problem solving.

- **moderate social density area** - An area designed for concentrated individual work with an opportunity to coordinate with small teams of co-workers. An area containing clusters of workstations with a variety of screen heights (this can vary according to use, although using a variety of screen heights in a fit-out may reduce flexibility) or enclosed offices for multiple staff members, i.e. the normal open plan office.

- **high social density area** - This area would embody movement and energy. A space for multiple interactions such as brainstorming or individuals engaged in highly repetitive and cognitively undemanding tasks.

Agencies need to consider the proportion of each of these social density areas against their particular business needs.

### B.2.5 Flexible workplace design

An agency may want to consider applying ideas from both ABW and traditional workplace design approaches and create a flexible workplace design suited to particular methods of working. There is no ‘one size fits all’ approach for ABW or other flexible workplace installations as each application should be tailored to reflect the business model and activities of the agency.

The table below illustrates some of the ideas of each philosophy with an example of a possible hybrid/flexible workplace design option that may work for some agencies but this again can be modified to suit a particular agency.

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20 The terms ‘social density’ and ‘occupational density’ are inverse statements of the ‘person: to area’ ratio. PRODAC occupational density is equivalent to the rate of ‘area per occupant’ (see PRODAC Specifications definition), ‘social density’ is the rate of occupants per area. The term ‘social density’ arises from the psychology field in discussions of the effect of rates of crowding.
An example of a hybrid flexible workplace design option is Comcare’s new Canberra office fit-out (See Appendix C.D.4). Comcare represents a ‘hybrid’ solution in the sense that it retains the assigned desking of a traditional-based solution while incorporating the strong support for mobility and collaboration seen in ABW.
B.2.6 Working remotely / teleworking

Teleworking refers to the opportunity for employees to work away from the office, either at home or from another remote location. The opportunity to telework may be formalised in workplace agreements, so that there is a clear working structure that does not detract from the efficiency of the office or the individual’s work team.\(^{21}\) The Australian Government’s National Digital Economy Strategy specifies a target for telework adoption of 12%, or approximately 1 in 8 Australian employees and at least double the current level, by 2020.\(^{22}\)

Greater access to teleworking potentially delivers positive effects on employee work-family/life balance and on workplace culture. Teleworking provides employees with a sense of responsibility and personal empowerment. It has been associated with higher self-reported task performance, improvements in job satisfaction and commitment, and reduced employee turnover. It also has quantifiable environmental benefits as office space allocation, and energy use may be reduced, and commutes to the office can be reduced and moved away from peak travel times.

Studies have indicated that permanent teleworking can have some disadvantages include eroding relationships with co-workers, creating social and professional isolation, increasing conflict between work and family life conflict and increasing the tendency to over-work.\(^{23}\) Team cohesion can be improved through the use of team meetings, social gatherings and other team correspondence including teleconferencing.

Teleworking has been formalised in the United States Government through the introduction of the ‘Telework Enhancement Act of 2010’ and adopted by various agencies. Experience in the United States Government indicates that the average teleworker spends 2 days or less per week away from the office and that 27% of teleworkers spend 3 or more days per week away from the office.\(^{24}\)

The successful introduction of teleworking is dependent on the implementation and support provided by an agency and management. The support required differs depending upon the amount of time an employee is away from the office, which could vary from 5 or 6 days a month to working outside the office permanently.

Teleworking will of course mean putting in place appropriate information technology capabilities to support this style of working, in terms of hardware, software and security. The provision of technology to teleworkers should be discussed with an agency’s ICT and security areas to ensure that the appropriate equipment is available and that appropriate levels of electronic security are achieved.

B.2.6.1 Visiting workers

An employee working outside the office on an ongoing basis may have less need for a full, dedicated workpoint at their office. The agency should be able to accommodate visiting teleworkers, e.g. provision of a space that allows notebook/laptop docking, telephone or VoIP and a data connection. If they come in primarily to attend meetings and use a notebook/laptop, teleworkers may not need an assigned workpoint at all.

Agencies should also consider how short to medium-term visiting staff, such as contractors or project teams, are to be accommodated. There are a number of seating solutions for visiting workers including touch-down areas, vacant workstations or offices, and the use of communal areas such as break-outs/tea points or cafes.

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B.2.6.2 Mobility and portability

A major enabler of flexible office solutions that facilitate high mobility of employees is new technology including VoIP, Wi-Fi and mobile devices like notebooks/laptops and tablets. These technologies free employees to work in the range of environments that are provided in the new office, particularly under ABW. It is also evident that where wireless communications are not appropriate perhaps for security reasons, a high rate of provision of fixed network connection points, including in common areas and break-out spaces, will provide the greatest opportunity for employees to vary their workpoint to suit their task.

B.2.6.3 Security

Agencies should consult with their internal security groups for advice in considering any ICT initiatives to ensure the appropriate infrastructure is available to maintain the security of information. Security should be considered when certain accommodation arrangements might occur, e.g. where two service delivery agencies elect to co-locate.
B.3 Guidance for workplaces

This section of the Guidance discusses the elements that will need to be considered and addressed in delivering a typical office accommodation solution.

B.3.1 Integrated fit-out

When addressing an office fit-out in a new building, there are often time and cost benefits of integrating the fit-out works with those of the new base building, in particular in the construction of ceilings, floors, air conditioning and lighting. It seems wasteful to allow a new building to be fully constructed and then partially demolish ceilings and services to accommodate the specific demands of the fit-out.

Advantages

- may reduce both base building and fit-out costs
- may reduce overall project program (including fit-out)
- may reduce environmental impact through reducing wastage
- may reduce the risk that the base building services are designed to meet the fit-out requirements from the outset.

Disadvantages

- may be difficult to separate and track base building costs versus fit-out costs
- requires early engagement and quick turnaround on decisions from all parties
- requires good communication and collaboration between the base building project team and the fit-out project team
- practical completion date for the base building may be extended due to the additional fit-out works.

B.3.2 Open office layouts

The layout of work areas, where considered appropriate, can be configured to suit the functional or work needs of the team. For example, the open spaces can be divided into smaller ‘suites’ to maximise the distance between workers and to assist in reducing distractions and noise levels. However, as discussed above, there should only be minimal exceptions to the standard approach and senior management agreement should be sought prior to its implementation.

B.3.2.1 Modular designs

Property managers should consider a modular approach to office planning that provides flexibility for change in purpose, movement or growth with minimal disruption over the life of the office lease. Generic, standardised designs and layouts should be applied wherever possible with minimal exceptions, in which circumstances customisation can be achieved by having a standard range of add-ons. As well as the advantages of cost savings, this approach emphasises equality in the layout throughout the various areas occupied by an agency and may contribute to fostering a culture of collaboration.

The use of modular workstations and furniture provide maximum flexibility as the components can be reconfigured and reused. Also, modular components can more readily be transferred between workstations, floors and across buildings. These desks should be free standing rather than panel-based as the latter can cause disruption when workstations need to be reconfigured, dismantled or moved to another area. The size of workstations should also be based on the intended function rather than job classification.

Modular components will also help to save time when building works or urgent repairs are required in a work area. An example of this is outlined in Case Study No. 1 where DHS ensured that most furniture, such as storage units and tables, for the fit-out of the Caroline Chisholm Centre building could be dismantled and moved by no more than two people, and be able to fit through a 900mm doorway.

Note that the Australian Standard AS/NZS4442 provides minimum standards for office desk sizes.
B.3.2.2 Workstations for people with disability or specialised requirements

Within the workplace, some people have physical reasons or disabilities where they require a specialised workpoint that might not be satisfactorily accommodated at a standard workpoint. This is a matter of equity in the workplace and may not be a great impost for either traditional or ABW models, particularly in preliminary design stages. Workstations with special requirements may be satisfactorily accommodated within standard workpoints configurations and with standard adjustability. In Case Study No. 1, for example, DHS, in association with workstation manufacturers, developed a free standing adjustable work top for workstations that allows for increased range of height adjustment. The height adjustment range is from 610mm to 900mm above the floor. This improves the ability of their workstation to accommodate people with disability or with special workstation requirements.

Some bench style desking, as used in some ABW installations, may restrict height adjustability for persons with disability. Bench style layouts should be designed to accommodate a range of non-standard needs of users such as height and accessibility by wheelchair users.

B.3.2.3 Workstation development

Workplace design has evolved over time to keep up with technology, user demands and working styles. The introduction of the flat screen computer monitor has influenced a significant widespread design trend towards the use of 180 degree (i.e. rectilinear or rectangular) workstations. This design trend moved away from the 90 degree workstation and allowed for a higher office density, increased flexibility and a more open workplace. This shift in technology also saw the free form, e.g. jelly bean, workstation and 120 degree workstation commonly used in modern workplace design (refer to Appendix A of this Guidance for further information and illustrations).

Each of these desking solutions are available with three types of support systems, which are:

- fixed – no height adjustability
- technician adjustable – adjustable by a workstation technician or facilities management employees
- user adjustable – adjustable by the individual workstation user.

B.3.2.4 Impact of technology

Office design should adjust to meet the changing demands of users, technology and working styles. For example, there has been a noticeable shift in the nature of office design with the introduction of notebooks/laptops, smart phones, tablet devices and wireless technology which have enabled the introduction of more flexible office designs and ABW.

The introduction of the flat screen computer monitor has facilitated the use of rectilinear or 180 degree workstations as compared with L-Shaped or 120 degree workstations which were required to accommodate computers with large CRT monitors.

Recent advancements in technology allow workers to work anywhere, at any time, resulting in an adjustment in office planning and furniture design.

B.3.2.5 Flexible components

Dedicated left-hand or right-hand desks should be avoided as they have a high long-term cost-of-life. Where any form of customisation is considered necessary, standard workstations should still be used but customised with suitable add-on components.

Designing a fit-out with flexible components allows for ease of rearrangement to suit any future change of the agency, with potentially lower medium to long-term costs. Having flexible components lessens the need to buy new items, find storage space or remove items no longer required. This is demonstrated in Case Study No. 1 (Caroline Chisholm Centre building) where DHS ensured that all furniture could be dismantled and moved by no more than two people, and fit through a 900mm doorway.

Workstation systems should accommodate a range of user height needs, and ideally, desk systems should allow for a range of 600mm to 900mm above the floor to accommodate the range of heights of users. A workstation system such as the one being developed by DHS has an adjustable winder that is relocatable to either end of the desk without the need of any tools and takes approximately 30 seconds to complete (refer to Case Study No 1).

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26 E.g. Someone may prefer a standing desk. This may be for back health reasons but is not required. There might be particular reception areas or processing areas where standing is preferred also.

27 The improved workstations are being supplied at no cost premium to the agency.
B.3.2.6 Workstation screens
The height of screens, and particularly those that are nearest to windows, should be kept to a practical minimum to optimise natural light into a work area and to preserving outlook for employees. Agencies may wish to prescribe maximum heights in their design manuals. Screens should either be free standing or attached to desks or storage elements, and should ideally be of a light material for easy movability.

B.3.2.7 Taskforce spaces
Agencies may have a need to quickly assemble a temporary taskforce or project group. Where this is a normal part of an agency’s business, consideration should be given to setting up dedicated spaces for such work but be made available for other uses when not occupied e.g. for meetings.

An example of this is outlined in Case Study No. 2 for PM&C where being reactive to the political climate is necessary, including the ability to quickly create a multi-agency taskforce depending on the politics of the day. Flexible meeting rooms have been created containing furniture that can be easily removed and workstations added to allow for taskforce use. A 20 person meeting room can accommodate 10 to 12 workstations. Taskforces often need to be in close proximity to the agency so that supporting services and access to knowledge and records is readily available.

B.3.2.8 Cable management
There are three different types of cable management:

- hard-wiring to the workpoint
- soft-wiring to the workpoint
- wireless communications.

Hard-wiring means that the electrical or data cabling is permanently connected to the workpoint by the cables/wires that come from the electrical and data distribution board and requires a licensed contractor to install or reconfigure.

Soft-wiring means that electrical or data cabling is fitted with plugs and sockets that are manually connected to the electrical and data system.

The advantages of soft-wiring may include:

- more flexible than hard-wiring for future changes
- increase in mobility
- no terminations required on site because the device is terminated at either end
- faster, simpler and safer to install
- minimised waste or off cuts.

A wireless network has no wire connecting the electronic device/equipment. The device is operated with or activated by electromagnetic waves.

The advantages of wireless may include:

- speed and simplicity of installation as there are no wires/cords required for connection/activation
- reduced cost of ownership (initially the costs can be higher for a wireless network than a wired network, although overall installation expenses and life-cycle costs can be lower)
- configuration is possible in a variety of spaces to meet the needs of specific applications such as break-out rooms and meeting rooms.

Soft-wiring and wireless networking are the preferred methods as hard-wiring through workstations leads to a very high level of inflexibility and high costs when offices and workstations require re-planning. Hard wiring should be avoided wherever possible in all low security installations.

B.3.3 Circulation spaces

B.3.3.1 Traditional type of circulation space/design philosophy
Traditionally in a commercial fit-out there are two types of circulation; primary circulation and secondary circulation.

Primary circulation is the central corridor or corridors, which run the length of a floor plate with workstation clusters and/or offices adjacent. The primary circulation usually takes up approximately 25% of the overall floor plate and is required to be a minimum of 1,000mm wide with wheelchair access passing spaces of a minimum of 1,800mm x 2,000mm at maximum of 20m intervals in accordance with the Australian Standard AS1428.1 and the Disability (Access to Premises – Buildings) Standard.
To minimise disruption, major thoroughfares, or primary circulation routes, should occur towards the core of the floor i.e. adjacent to meeting rooms, enclosed offices, hubs, etc. Where primary circulation near work areas cannot be avoided, e.g. due to physical or other constraints, partitioning should be added to minimise disturbance to affected employees.
B.3.3.2 Main street

The main street design philosophy is a design tool used in both small and large office tenancies to promote organisational cohesion, support, communication, interaction, identity and inclusion. The main street contains a central spine for employees to move through, creating a sense of activity, energy, interest and flow as a main street in an urban setting would provide.

IBM first developed the idea of a main street in the early 1980s for a large single floor tenancy in New Jersey, USA. It has since been successfully used in a number of commercial office buildings, including DHS’ Caroline Chisholm building (see floor plan under section A.3.1.2 Floor plan examples).

The main street philosophy involves locating as many of the shared facilities such as cafes, conference facilities, ATMs, central communication stairs, lift lobbies and some break-out/tea points along the central spine in order to maximise the interchange of ideas through casual meetings and the opportunities to work in a range of places such as cafes or quiet sitting areas. In large tenancies, the main street is often located in the building’s central atrium, which is often an air tempered and daylight filled space with indoor plants. Importantly the main street should be seen as a thoroughfare and not as a static atrium.

The main street concept incorporates the following key principles:

- primary circulation for ease of navigation through the building for its occupants
- location of all common facilities along the main street or spine to encourage interaction
- provides an organisational focus – people must move through the spine
- a unified company identity or brand achieved through co-location
- organisational transparency which provides an opportunity for a visitor to get a sense of the organisation upon arrival at the building.

The main street design philosophy in smaller tenancies adopts the core principles of larger tenancies creating a central, daylight filled spine with open and private spaces for employees to move through. The floor plate in figure 12 is an indicative spatial study for the introduction of a main street in a smaller tenancy of a standard style office building.

Figure 13 - Concept design for Air Services, Canberra ACT 2010.
B.3.4 Enclosed offices

Enclosed offices are best located adjacent to the centre of the floor, e.g. along the main public corridor. Locating these spaces (which normally have floor-to-ceiling partitioning) close to windows, obstructs light to the other parts of the floor and impacts on heating and cooling circulation.

While enclosed offices for non-Senior Executive Service (SES) positions should be avoided, agencies may consider it appropriate on a case-by-case basis. Where this is the case, offices should be designed with future uses in mind and therefore maximum flexibility. For example, office sizes may be designed to allow the space to readily be converted to a meeting room should an enclosed office no longer be required.

Where possible, enclosed offices should be located in the built zone, adjacent to the building core and alongside an existing meeting room or other enclosed space such as a quiet room or another office for ease of flexibility if churn is required. This would allow the office to be used as a meeting room by other employees or for confidential discussions with agencies or between employees when the manager is not using the office. Glazed partitioning should be used to optimise access to natural light and preserve outlook.

B.3.4.1 Standardisation

The standardisation by agencies of offices and their furniture and joinery for the hierarchy of SES officers creates a more flexible office environment. This can be achieved by joinery being modular that can be reconfigured easily into any SES office. For example, DHS has four different modules for SES joinery that are all designed with the same finishes and cabinetry so that they can be interchanged. The break-down for these modules is:

- an SES Band 1 officer receives 2 modules
- an SES Band 2 officer receives 3 modules
- an SES Band 3 officer receives 4 modules.

This can also be achieved by designing the desking system and loose furniture as a ‘loose fit’ within the space i.e. the desk can be L-shape for SES Band 1 officers but SES Band 2 officers and above have a return behind them. The loose furniture can be changed by selecting a different size for the meeting table and the number of people it seats.

Another example of this is the Department of Education, Employment and Workplace Relations where an SES Band 1 officer has a four person meeting table and an SES Band 2 officer has a six person meeting table which is shown in figures 13 and 14.

**Figure 14 – Department of Education, Employment and Workplace Relations SES Band 1 office**

**Figure 15 – Department of Education, Employment and Workplace Relations SES Band 2 office**
### B.3.5 Common spaces

#### B.3.5.1 Cafes

Cafes located within the public area of an office building provide an informal setting away from the designated/traditional workspace for non-sensitive and non-confidential discussions. In addition to the employees working in the building, visitors and the general public are able to use the same space without the need to clear security. This mix of users assists in creating a diverse environment.

Cafes may be part of a mix of public and internal Cafes and internal Cafes might be considered in larger properties. For example, the Caroline Chisholm Centre has two coffee and food facilities, one in the public part of the building and one within the building’s secure zone.

#### B.3.5.2 Large gathering spaces

Agencies may have difficulty in providing sufficient space to accommodate a significant number of employees in one location; however, a space that is designed with movable partitioning may facilitate occasional large gatherings. This may be considered, particularly in larger properties for a mix of smaller gatherings utilising the partitions and occasional larger gatherings, where partitions are withdrawn to form a large space. An example of this is in ATO’s new Melbourne CBD fit-out which has 3 large conference rooms located next to each other allowing the operable walls dividing them to open to create one large room. This space also opens onto the milling space/staff hub and kitchen allowing for large meetings and gatherings to occur.

Creative use of atrium/main street spaces may provide options for a range of gatherings. For example the Caroline Chisholm Centre can accommodate a significant number of its employees on the floor of the main street, around the balconies and adjacent to the main street on each floor.

#### B.3.5.3 Conference and meeting spaces

Traditional meeting rooms can be used for formal meetings, interviews and meetings with employees and clients where privacy is required. ABW work environments often feature non traditional meeting options that have varying degrees of separation from their surroundings, or no separation in some cases.

Given the need for partitioning in traditional meeting spaces, these rooms should be located away from windows i.e. close to the building core. At least one of the walls should be glazed to allow sufficient light to enter the meeting room, reducing the need for energy and preserving a degree of outlook.

To maximise convenience and use of these spaces, meeting rooms should be placed at appropriate locations on the floors of all work areas. Centralising meeting rooms on a single floor should be avoided. Further, the availability of conveniently located meeting rooms, ideally of varying sizes, within the work area is a positive trade-off to an open plan work environment where impromptu meetings and discussions may be disruptive to other workers.

Tables for large meeting rooms should be modular and supported by wheels to allow easy separation and rearrangement. Where other furniture components are heavy, they should be supported by wheels to allow portability and easy reconfiguration.

*Figure 16 – the use of modular furniture*
Conference and meeting rooms may include an entrance on the non-secure perimeter side of the tenancy, removing the need to sign-in and therefore saving time in moving attendees into the room. In this case, two entrances can be used to access the room with one non-secure door that can be locked when not in use and one secure door, which requires swipe card entry and exit access for employees to use.

The illustration in figure 16 is an example of a meeting room on the non-secure side of a tenancy allowing for meetings to occur with clients and consultants without having to sign them in. This facility can possibly be shared with other tenants in the building as well. The dashed red line indicates the secure perimeter.

**Figure 17 - An example of a non-secure Meeting Room**

While the conference room should be available for use by all areas within the agency, consideration should be given to allowing other agencies to use the conference room to maximise utilization of the space. The room should be centrally maintained and booked.

### B.3.5.4 Video conferencing

Dedicated video-conferencing rooms should generally be avoided unless justified by frequent or specialised use. Instead, certain rooms (such as meeting rooms or conference rooms) should be video enabled but would essentially be designed and available for multi-purpose use.

### B.3.5.5 Training rooms and interview rooms

Dedicated training rooms should generally be made available where the agency conducts day-to-day training of employees. Where the opportunity exists, training facilities may also be made available for use by other agencies. This will help to maximise the occupancy and use of the space.

Where training rooms are to be incorporated into a typical work area, they should be located towards the core of the floor plate due to the enclosed nature of these rooms and to optimise natural light for open workpoints. Locating training rooms in basements may also be appropriate.

Dedicated interview rooms should generally be avoided unless they are needed for a core function of the agency.

### B.3.5.6 Managing the use of conference, meeting and training rooms

Meeting and conference facilities may appear booked (or fully booked), but often this is not the case and these inefficiencies in space utilisation lead to complaints from staff about the lack of availability of meeting rooms. A centralized electronic booking system maximizes visibility of room availability and ease of booking.

DHS will be installing such a system in their building in Greenway, in ACT, which will allow employees to book meeting rooms online through an email system. It will also allow the agency to monitor room usage, false bookings and so on, which will lead to greater real utilisation of the meeting rooms.
B.3.6 Staff wellbeing and amenities spaces

The following spaces may be required by an agency. While each section contains examples, the exact configuration/design is a matter for individual agencies to determine.

B.3.6.1 Carers/family room

A carers/family room offers a place for a parent to bring a child to work. This room would normally contain a desk, lounge, possibly a refrigerator and adequate storage facilities. The ‘mothers room’ can also be incorporated as long as the area can be isolated from the rest of the space.

Figure 18 – An example of a carers room

B.3.6.2 Mothers room

A mothers room provides privacy for nursing mothers and should contain an armchair and refrigerator and also adequate storage facilities. This can be incorporated into a carers/family room as long as it can be isolated from the rest of the space.

Figure 19 - An example of a mothers room incorporated in a carers/family room

B.3.6.3 First Aid room and sick room

The main difference between a sick room and a first aid room is that a first aid room should be fitted with a basin with hot and cold taps. Both rooms should have adequate cupboards and shelving for storage of supplies and possibly a bed.

Figure 20 - An example of a sick room
**B.3.6.4 Prayer/Reflection Room**

Consideration should be given to the location of the door to a prayer room. People of particular faiths have specific requirements with regard to the placement of room openings etc. Typically, these spaces are required to accommodate the needs of all denominations. The room should encompass provisions for rituals practiced, such as washing, segregation of genders or ease of orientation for prayer. Possible furniture needed could include chairs, cushions, a small table, a storage unit and a shoe rack. A prayer/reflection room may be incorporated with a rest room or quiet room. A system of booking the room may be required if the room has more than one purpose.

**B.3.6.5 Quiet rooms**

Quiet rooms may be located towards the core of the floor e.g. along the main public corridor adjacent to meeting rooms and enclosed offices (non-SES) although this is not as critical for this function. The space should provide both acoustic and visual privacy. The rooms should be networked to data and voice communications to maximise use. Modular furniture should be used to facilitate flexibility of use and potential conversion to another use.

Employees should have equal access to the quiet room, which can be used on an occasional or temporary basis. The space should not to be used as a private office for any employee, even on a temporary basis, unless there is no other practical alternative. However, where concentration is required for a task, it would be appropriate to use the room for this reason. Quiet rooms are intended for the use of employees for conference and other business calls, as well as personal or sensitive telephone calls. They provide privacy for those using the room and minimise disruption to others.

**B.3.6.6 Libraries**

The PRODAC treatment of libraries is an important consideration in the provision and location of agency libraries. Agency libraries are treated as usable office area under PRODAC. As a result, a library, along with a range of usable-office area spaces which do not accommodate officers, e.g. conference rooms, circulation spaces and others, may contribute to lower occupational density performance in a property.

One option for mitigating the impact that an area provided for libraries might have on the occupancy rate is to provide all or part of a library within a basement or another non-office area. For example, this might be in an archival or warehousing space classified as NOA on the basis of inadequate amenity. Agencies should also assess the potential for an E-Library as this may reduce the floor space needed for a library within usable office area.

Treatment of space under PRODAC should be balanced against the potential value of a library for an agency. There may be valuable opportunities for communication or collaboration in reading and research areas, for example. These areas should be provided with a level of amenity and outlook to maximise these potentials.

Beyond PRODAC considerations, an assessment should also be undertaken of disability access and security considerations in a public facility (refer to Appendix B of this Guidance). Locating the facility adjacent to the entrance of the building will generally assist with security and disabled access compliance. Security or other building limitations may mean that public access to separate sanitary facilities may also be needed.

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28 The principle which lead to libraries being classified as usable office area is that ‘Areas used to store office items’ are counted as office area under PRODAC – see PRODAC Specifications, office items definition. The exceptions to the UOA classification are where all or parts of libraries are: 1) fully publically accessible or 2) within a space that is classified as non-office area regardless of the function it contains, such as a basement or an area lacking amenity for office – see PRODAC Specifications, non-office area definition.
B.3.6.7 Utility areas

For the purpose of this Guidance, a utility room/area is a space that can be used for stationary storage, printing, copying, scanning, faxing and other office equipment. Utility rooms/areas should be centralised on a floor to allow equitable access and to avoid disruption to local workpoints. These spaces should generally be located away from windows.

Agencies should try and contain and suppress noise arising from utility rooms to eliminate, or minimise, noise disturbance to adjacent work areas. Consideration should be given to combining uses e.g. installing a filing compactus or general storage space in a utility room.

Multi-function machines, such as a multi-function printer should be used and will contribute to saving space. In addition, the incorporation of pull printing allows the user to print documents at a printer that is most convenient or preferred. The user is not required to select a particular printer to print from. The document will appear at whichever printer the user wants to collect it from. The user selects a pull printing style printer, goes to the nearest or preferred printer, swipes their card and collects their documents.

B.3.7 Storage

Arrangements for storage have a significant impact on the efficiency, effectiveness and flexibility of office accommodation. Organisations need to recognise that individual areas and teams within organisations will have different storage needs. Some areas may have processing roles or need access to legal reference library material or they may use large format materials such as maps, charts or architectural drawings. Other areas may work almost exclusively using ICT and so use minimal paper. Security considerations are important also, particularly in the Commonwealth, with some items requiring storage in hard copy form and in secure cabinets.

B.3.7.1 Personal storage

In current accommodation solutions, and particularly in ABW, personal storage arrangements are at the forefront of cultural change. As ABW pushes clean desk policy to the limit to maximise mobility, important challenges arise, particularly around personalisation and territoriality in the workplace.

Personal items can signal ownership or taking possession of a space. They can deliver a feeling of security and certainty to workers. Against this is the mobility and agility delivered by ABW. Accommodation solutions must balance these competing forces and achieve acceptance and buy-in rather than needing to be imposed and policed from the top down.

Part of the ABW supporting structures is assistance for people to move from workstation ownership to home zones as the mechanism for retaining a sense of belonging and control of personal space. Personal storage elements may be standardised and designed to complement standard workstations. This provides interchangeability and flexibility and reduces unit cost.

Particularly in ABW, lockers with carried storage containers or wheeled caddies are the two main options for personal storage. Caddies provide a greater capacity for storage but lockers with trays may be more agile. Prototyping and consultation may point the way on what works for particular organisations or groups.

B.3.7.2 Team storage

Team storage is defined as common storage for a work team that is located close to the team's workpoints. Team storage is usually lockable cabinets about 1,100mm high located in corridor spaces adjacent to the workpoint. These storage units are used for immediate day-to-day files required by the team.

Larger quantities of files, especially those required on a less frequent basis, should be stored in filing hubs which may include large compactuses.

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29 ‘Personal storage’ includes ‘personal items’ and ‘personal use items’. ‘Personal items’ include family photos, coats and bags, etc. ‘Personal use items’ might be printouts of working documents, files, references, and current work related items. Personal storage effectively includes items that might be needed at a workpoint for normal work and that are generally moveable for the daily work cycle or within a work-day.

30 The term ‘clean desk’ may vary in scope for different implementations and even between different groups within agencies. In traditional accommodation, personal items can often be left at desks overnight as the occupant will return to that workpoint. For ABW a higher standard of ‘clean desk’ is needed to ensure workpoints are immediately available for a new occupant.
B.3.7.3 Filing hubs
Centralising filing into a filing hub can be an efficient use of space and of storing records. Where it is not practical to build or set up a filing hub, files should be stored in compactus file storage units or other types of filing cabinets. These should be located alongside walls and away from windows. Weight loads of compactuses must be considered in regards to their placement in a fit-out.

Files that need to be accessed readily and are frequently used may be stored in the office area. However, other files should be archived at an off-site location or within a non-office area of the occupied building, e.g. a basement space, given that working space is relatively more valuable. The archival storage of files may be important to maximising work area floor space.

B.3.7.4 Archive storage
According to policies developed by agencies, non-essential files can be sent off-site for medium term storage. Some types of files, such as those required for performing day-to-day work, may be stored on-site.

B.3.8 Technology
Technology is a key enabler of change to an office as it allows for mobility of the workforce within an office area, as well as allowing employees to work remotely where relevant and appropriate. As such, it is important that an agency’s ICT group is closely consulted in the development of any proposed fit-out design.

The types of technology that can create mobility, interaction and collaboration between staff may include:

- Notebooks/laptops and tablet devices – these devices can either be supplied by the agency or the employee can bring their own device and use it where an agency allows this. In relation to notebooks/laptops, products that are compact and light-weight with a solid-state hard-drive and no disc drive would be the most portable.

- Smart phones – these devices can either be supplied by the agency or the employee can bring their own device and use it where an agency allows this.

- Wi-Fi. (i.e. the bridge between a hard-wired broadband internet connection and a wireless device, which works in a ‘hotspot’)/wireless network (connects anywhere where mobile phone service is available) – the Wi-Fi and wireless networks can be used by agencies with ‘protected’ classification and below security requirements. Agencies should consult with their internal ICT and Security areas.

- Workstations equipped with a docking station for notebooks/laptops and a monitor to allow information on the notebook/laptop to be viewed on a larger screen.

- Plug-in areas that a staff member can plug their notebook/laptop into i.e. in a break-out area or informal meeting area, etc.

- An electronic room booking system that links into agency networked calendar system using a touch-sensitive screen outside a room that displays the booking status of that room clearly.

- VoIP telephone systems.

- Collaboration tables – that are usually provided with a monitor or monitors with connection points where staff can plug in their notebooks/laptops or tablet devices and information can be projected from these devices to the monitor or monitors.

- Online communications software.

- Video conference and telepresence system.
Part C
Appendices
The purpose of this appendix is to provide an overview of some of the workstation styles that are currently available.

### C.A.1 Workpoint styles

The different types of workstations generally fall into one of the following forms:

- Rectilinear (180 degree)
- 90 degree
- 120 degree
- Jelly bean
- Storage Spine
- Free-form.

The following pages illustrate how these different styles of workstations can be configured to populate a space.

#### C.A.1.1 Rectilinear

The Rectilinear or straight desk may have workers sitting next to or opposite each other, or a straight desk can be attached to a spine of storage. This style of desk is a traditional style of workstation and, with the advent of flat screen monitors, this style of workstation has emerged as efficient in terms of space use.
Consider: This style is possibly suited to touchdown desks at the end of rows.
Strengths/advantages: They provide a clean look, possibly enhance side-by-side collaboration work and are, good for circulation. Reticular workstation’s are less space hungry than other workstation styles.
Possible limitations: Less side space or return capability in the configuration so may be less suited where more paper handling is involved, possibly offer less privacy than some other configurations - consider side to side screening where more privacy is sought, possibly suited as part of the mix for ABW or touch-down especially where less screened, chairs may back out into a passage space which could cause a conflict.
C.A.1.2 90 degree

The 90 degree workstation or 'L' shaped workstation allows space for employees to spread their work and perform multiple tasks. This workstation is also a traditional style e.g. set up computer in the corner but and work surfaces on either side.

*Figure 23 - Example of a 90 degree workstation*
Consider: 90 degree style of workpoint configurations, along with linear arrangements, use space very efficiently while this arrangement also separates chairs from corridors more effectively than linear arrangements.

Strengths/advantages: This configuration is possibly more private and has a larger controlled zone for the occupant than with the straight style workpoint. There may be more side space for papers, although this has the flip side of being less conducive to a clean desk policy.

Possible limitations: This configuration is possibly less conducive to collaboration than linear style units.
C.A.1.3 120 degree

The 120 degree style is a development of the 90 degree workstation to suit a central monitor position with working surfaces on either side.

Consider: This style may introduce some visual and physical variety to layout as it breaks free of a rectilinear/gridded approach – which may lack ‘vitality’ — but it may use more space.

Strengths/advantages: It may provide a more ‘open’ vital looking working environment with good privacy for individuals and easily accessed large desk areas.

Possible limitations: The area at the apex of the workstation may not be used as much as in previous years due to the slimmer style computers. This configuration may use space less efficiently than rectilinear arrangements and it may also be less conducive to collaboration than some other styles.

Figure 28 - Example of a 120 degree workstation

Figure 29 - 2004, Toll Transitions, Canberra ACT

Figure 30 - 2008, Australian Medical Council, Canberra ACT

Figure 31 - 2012, Australian Research Council, Canberra ACT
C.A.1.4 ‘Jelly bean’

The Jelly bean is a free-form development of the 120 degree workstation that provides a less regimented looking work environment. Work surfaces tend to be small, but can be augmented by other ‘jelly bean’ tables (see diagrams 35-37).

Consider: This may be the most casual, friendly looking arrangement. Screening of workstations may also be less pronounced.

Strengths/advantages: A less regimented looking work environment may add vitality and enhance comfort levels to accommodation.

Possible limitations: These workstations can use up quite a bit of space and cause unusable spaces due to their usual shape. They may not suit heavier paper-use areas or higher privacy areas.

Figure 32 - Example of a ‘jelly bean’ workstation

Figure 33 - Commercial jelly bean fit-out in ACT
C.A.1.5 Storage spine

This style of workstation allows for modular storage units to be integrated into the workstation configuration and footprint instead of the storage being standalone units. The storage is capable of being integrated with cable reticulation.

Consider: There may be reduced flexibility in this arrangement where storage is locked into workpoints but space use efficiency should be good.

Strengths/advantages: There is strong availability of storage to workpoints. Less screening may improve collaboration opportunity.

Possible limitations: The more rectilinear layout may reduce spatial interest. Less workpoint screening may move toward the distraction end of the scale for individual users and the arrangement is possibly less flexible but this arrangement may suit some business operations.

Figure 34 - Example of a storage spine workstation

Figure 35 - DJAS fitout for Knight Frank, Canberra ACT

[Illustration produced by Daryl Jackson Alastair Swayn Pty Ltd]
C.A.1.6 Free forming

This style of workstation allows the individual user to customise their own desk and storage pieces into a configuration that suits them as long as the main desk is connected to power and data. The free forming workstation generally has many different workstation pieces that enable a variety of configurations which may allow visual differentiation between business areas.

Consider: People may appreciate being able to control and influence their personal space but there will be limits and potential conflicts to manage.

Strengths/advantages: Less formal, less one-size-fits-all approach may be appreciated by users.

Possible limitations: There may be possible clashing personalisation of space issues to manage. The personalisation aspect may not suit ABW.
C.A.1.7 Using different types of workstations in the one fit-out

There is no inherent reason why a fit-out should be limited to a single workstation type. It is true that there may be economies in purchasing multiple units and there may be relocation advantages in a standard module, however, particularly in larger scale implementations, it may be advantageous to include a few different styles of workpoint to enliven the spaces and provide a range of options for users. This applies particularly in an ABW adoption.

There may also be functional reasons for introducing variety. For example, a multiple workpoint configuration approach is taken in the Australian Medical Council fit-out in Canberra. In the main office area a 120 degree workstation is provided for the general population while a rectangular desk is preferred for the ICT area. Collaboration was seen as a high priority in the IT area and the rectangular style of workstation was seen as supported this more strongly. The plan and images below illustrate the arrangement.

When considering using different styles of workstations in a fit-out, consideration should be given to the efficiency/flexibility in responding to change when required, often at short notice. It is possible to create different styles of workstations by having add-on components to a main style of workstation with possible storage of extra components. This allows the fit-out to be flexible and yet also efficient.

**Figure 37 - Example illustration of different workstations in one fit-out**
Figure 38 - Australian Medical Council, Canberra ACT
C.A.2  Focused and collaborative workpoint solutions

There are currently office booth/enclosure products available which provide users with spaces for collaborative work with a level of privacy or where workers are able to perform focused tasks with a degree of visual and acoustic separation, while still within an open plan environment. These are of particular value in an ABW environment but may also have applications in more traditional environments. These products are usually made from sound insulating and absorbing materials to dampen outside sounds thereby providing a quieter space for users. Some examples are outlined below.

C.A.2.1  One person booth

These are usually a free standing booth which may have an inbuilt desk or shelf installed. Some of these products may also include options for lighting or network connection. These units are designed to support quiet or individually focussed work or they may provide a suitable location for personal or sensitive telephone calls to be made while the user remains in the main office area.

C.A.2.2  Desk mounted booth

A desk mounted booth could be free standing and might be able to be moved around or pulled toward the user to create a quiet space. This might support personal or sensitive telephone calls for example.

C.A.2.3  Wall mounted Phone Booth

A wall mounted phone booth performs a similar function to the desk mounted booth. It allows the user to make a phone call in a quieter space than in the open office. These phone booths might also be fitted with a shelf to allow users to take notes while on the phone.
C.A.2.4 Free standing multi-person booths

Free standing multi-person booths are designed to provide a comfortable, informal meeting space where employees can share information with a degree of privacy from the surrounding space. Some of these booths may incorporate lighting or network connection options.\(^{32}\)

Figure 42 - a free standing multi-person booth

C.A.2.5 Acoustic panelling

Acoustic panelling for commercial office applications have been around for quite a while but there are now products readily available that come in different sizes, shapes and colours and are relatively inexpensive where they are not 'custom made'. These panels can be fixed to the ceiling and walls to help dampen echoes and noises of large open offices spaces, which can be distracting to users.

C.A.2.6 Sound absorbing furniture

Sound absorbing furniture products may be used to create quiet zones and informal meeting points. Some products have tall backs and/or extended side panels, creating a semi-enclosed space. Some of these products can also be rotated to create different spaces and uses from the one piece of furniture e.g. located up against a wall or free-standing in the office area.

C.A.2.7 Moveable free-standing partitioning

Sound absorbing moveable free-standing partitioning can be used to divide spaces or provide a screen for a workstation which can be easily moved.

Figure 43 - Example of a freestanding partition

The above examples demonstrate that there are a large range of alternatives in this area. Some chairs or chair-groupings incorporate sound or visual wings to the tops of chairs to deliver acoustic/visual privacy. Other options are more like nooks built into walls. One installation even included ski-lift gondolas for this concentrated work/collaboration function, the point being that the possibilities for enlivening the greater office space are a consideration in this sort of inclusion.

C.A.3 Demountable partitioning

Demountable partitions are not currently widely used in commercial fit-outs compared to dry wall constructions. This is mainly due to relatively higher upfront whole-of-life costs, though this might be becoming a marginal difference in reality. Recently however, demountable partitions have become a more viable option because of their unique advantages including that they support greater flexibility in the physical workplace and that they reduce waste to landfill. As the design of demountable partitions evolves they are becoming more aesthetically pleasing and more acoustically sound as well as more cost competitive with dry wall construction.

\(^{32}\) It should be noted that some 'roofed' booths in internal offices might be deemed to require their own fire sprinklering, depending on size and degree of coverage. Consult the Building Code of Australia.
Advantages of demountable partitions:

- relocatable
- quick and easy to assemble
- less waste during construction
- possible cost savings for agencies with high churn rates.

Disadvantages of demountable partitions:

- dry wall construction can achieve better acoustic separation than demountable partitions
- most demountable partitions require additional sections or pieces when reconfigured
- once removed some work is required to make good the area where the partition was located i.e. because it was screwed into the floor and/or ceiling

It should be noted that reconfiguring of either style of partitioning is not the full story of a reconfiguration or its total cost. There will be other costs associated with: relocation of services, i.e. lights, air-conditioning, fire etc.; changes to fittings, carpets or hardware and; any costs associated with building approval processes.

Even so, the basic point remains: effectively, the first re-use/reconfiguration of demountable partitioning pays back any higher initial outlay as well as saving time and reducing waste.

Agencies should therefore examine the stability/volatility of their operations in considering demountable solutions to assess likely pay-back periods. But they should also consider the possible opportunities for flexibility that demountability might bring and the environmental advantages.
Office fit-outs must comply with a range of codes and standards. These codes can be divided into two parts: legislative and non-legislative. Legislative requirements are enforceable by law and must be adhered to. Non-legislative requirements are not enforceable but can be used as a guide to enhanced design that will offer the end user a well-considered workplace. A sample list of requirements, which will vary from time to time, is given below and agencies should seek independent advice on current requirements applicable to their circumstances.

C.B.1 Requirements

Legislative and legally adopted requirements include:

- Disability Discrimination Act 1992
- Disability (Access to Premises - Buildings) Standards 2010
- National Construction Code (NCC) Volumes 1 & 2 Building Code of Australia (BCA) (and subsequent amendments)
- Australian Standard AS1428.1 Design for access and mobility Part 1: General requirements for access – New building work
- Australian Standard AS1428.2 Design for access and mobility Part 2: Enhanced and additional requirements – Buildings and facilities
- Australian Standard AS1428.3 Design for access and mobility Part 3: Requirements for children and adolescents with physical disabilities
- AIA Policy – Design for an Accessible Built Environment.

C.B.1.1 Disability Discrimination Act 1992

The Disability Discrimination Act 1992 (the DDA32) makes it unlawful to discriminate against any person, or their associates, on the grounds of disability, in a broad range of areas, including access to premises.

Section 23 of the DDA relates to access to, and use of, premises that the public has reason to enter or use. It states that failure to provide equitable access is unlawful, unless to do so would impose an ‘unjustifiable hardship’.

Because the DDA is human-rights legislation and not a building code, it is the courts and not the legislators who emerge as interpreters of the Act.

Access to the building is required from:

- the allotment boundary at the main points of entry
- any car parking space on the allotment (within or outside the building) which is set aside for people with disability or from any parking area serving the building
- any other building on the allotment, required to be accessible.

Equitable access includes the provision of a continuous accessible path of travel providing an uninterrupted, most commonly used, and direct route to and within premises or buildings and providing access to all services and facilities.

For non-ambulatory people, this accessible path of travel must not incorporate any step obstruction, including a stairway, turnstile, revolving door, escalator or other impediments, e.g. a lip on a kerb ramp, which would create a physical barrier.

C.B.1.2 The Premises Standards

Disability Standards made under Section 31 of the DDA, namely the Disability (Access to Premises - Buildings) Standards 2010 became effective on 1st May 2011 - now known universally as ”The Premises Standards”. The Premises Standards have been incorporated into NCC 2011, which became effective on the same day.

The Premises Standards clarify how building professionals and approval authorities can meet their responsibilities under discrimination law to ensure buildings are accessible to people with a disability.

The Premises Standards introduce some new access requirements including:

- increases in the number of accessible entrances and doorways to buildings
- increases in circulation space requirements such as in lifts, accessible toilets and at doorways
- signage in relation to accessible facilities
- the introduction of a requirement for passing and turning spaces on passageways in some situations
- increases in the areas covered by hearing augmentation systems in rooms with a built in PA system
- the types of lifts and access features within lifts
- increases in the number and location of unisex accessible toilets and the introduction of ambulant accessible cubicles in standard toilets.

In general the Premises Standards and new NCC requirements apply to any new public buildings or existing building upgrades for which an application for building approval is made after 1 May 2011.

The Premises Standards, the consequent amendments to NCC and the referred Australian Standards all combine to provide ‘deemed to comply’ examples of compliance with current DDA requirements. Any proposed departure from these provisions will need the expertise of an experienced access consultant and/or a lawyer experienced in current DDA requirements.

Compliance with the current NCC and the Premises Standards does not give guaranteed protection from claims made under the DDA. However, compliance with them and providing a high level of access will help reduce the likelihood of a claim being successful.

C.B.1.3 Recommended actions\(^\text{33}\)

An access audit of the premises is recommended to establish the extent of accessibility compliance and/or non-compliance. If necessary, obtain the services of qualified access auditor.

Where a tenancy is within an existing building built before the Premises Standards were in effect, the building owner may be required to upgrade access to base building areas including:

- provide access to the main entry of the building from public footpaths, parking and public transportation, as appropriate
- provide access to the areas where services are made available to the tenant and areas that may be used by the public, e.g. reception and waiting areas, lifts, and toilets
- provide access to other areas that the tenant is expected to use, such as the office areas, lunch rooms and kitchens
- prepare an action plan which establishes clear time lines, methodologies to overcome areas of non-compliance, (i.e. solutions for barrier removal), priorities, implementation strategies, and strategies for review and evaluation
- submit the action plan to the HREOC in terms of Sections 59-65 of the DDA 1992. Implement the required modifications/adjustments to the premises immediately or within the stated time frame. All reasonable steps to implement the action plan must be demonstrated and reviewed periodically.

Related documents include:

- Disability Discrimination Act 1992
- Disability Standards under the DDA
- Australian Standards AS1428.1-4 Design for access and mobility
- ADA Guide for Small Business, US Department of Justice
- HREOC publications
- DDA Action Plans – Business

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C.B.1.4 National Construction Code series

The National Construction Code Series (NCC) is an initiative of the Council of Australian Governments developed to incorporate all on-site construction requirements into a single code. The Building Code of Australia (BCA) is Volume One and Volume Two of the NCC. Volume Three pertains primarily to plumbing and drainage associated with buildings. The BCA contains technical provisions for the design and construction of buildings and other structures, covering such matters as structure, fire resistance, access and egress, services and equipment, and energy efficiency as well as certain aspects of health and amenity.

Access and egress are the primary BCA requirements relating to office design. It is important to maintain safe egress from all areas of a building in case of a fire or emergency.

The BCA requires a significant increase in the energy efficiency of all new commercial buildings since 2010. These energy requirements mainly relate to the thermal performance of the external envelope of the building and the energy consumption of the plant equipment and services within the building. The compliance requirements of the energy provisions of the BCA do not have a large impact on the internal fit-out of a building. Primarily, the fit-out should be designed to make use of natural light where possible to reduce the need for reliance on artificial lighting. Also, areas that require special temperature or humidity controls should be designed to maintain energy efficiency in accordance with the requirements of the BCA.

Another area of the BCA that can affect the design of the office fit-out is the selection of suitable materials. The BCA has specific requirements for the flammability and smoke developed properties of materials used in office buildings.

C.B.1.5 Australian Standards

The most common standards are Australian standards produced by Standards Australia and published by SAI Global Limited. These documents are nationally accepted building standards and many are referenced in the BCA which is in turn adopted under state building legislation.

The most common standards relating to office fit-outs are:

- Australian Standard AS1428.1 Design for access and mobility, Part 1: General requirements for access – New building work
- Australian Standard AS/NZS4586 - Slip resistance classification of pedestrian surface materials
This is a brief framework of possible physical provisions that might be covered in an agency fit-out manual. Refer to section B.3 Common spaces.

**Workstations:**
- Single standard or modular style based solution | multiple style based solution
- Provisions for some special units, e.g. touch-downs or ‘hot-desks’
- Configuration for each officer level, e.g. an EL2 might have a return to their desk
- Workstation style selection - see Appendix A.

**Offices:**
- Reconfigurable as meeting room | not reconfigurable
- Size to officer designation relationships.

**Conference rooms | meeting rooms or enclosures | meeting booths:**
- Reconfigurable as office | not reconfigurable as office
- Full teleconference capable | AV equipped | white board | projection capabilities etc
- Size: large | medium | small
- Partition system | moveable systems | demountability.

**Training rooms:**
- Computer desk provisions | projection.

**Reception areas:**
- Speed stile | waiting areas | concierge.

**Specialised equipment areas:**
- Laboratories | evidence rooms etc.

**Quiet rooms | focus booths | private call phone booths.**

**Interview rooms | interrogation rooms.**

**Libraries | registries | mail rooms.**

**Hub spaces | break-out spaces.**

**Kitchens | tea/coffee rooms.**

**Sanitary facilities that are over and above core building provisions.**
- Gyms | Showers | lockers

**Utility and specialized areas:**
- Print/copy/fax rooms
- Mothers room | sick room | first aid room
- Prayer rooms.

**Storage:**
- Compactus | basement store rooms | bike lockers | on floor storage cabinets.

**Other space provision items:**
- Circulation spaces meeting access/egress code requirements
- Disabled person access provisions
- Building services
- Recycle bins | Secure disposal bins
- Visitor chairs | Coat racks
- Office plants.

**Partitions and screens:**
- Screen types | screen height(s) | acoustics, visual separation | Finishes schedules | colour schemes.
Technology items:
- Computer rooms and cupboards
- Wifi nodes | touchdown network connection points.

Security:
- Space needs for Physical | electronic | operational aspects.

Other ABW supporting structures:
- Lockers | caddies
- Accommodation operating protocols.

Agencies should collaborate with their design teams on developing briefs for individual projects, however the fit-out manual should contain starting point guidance on the usual functional provisions in accommodation. This should cover the rates and sizes of provisions for familiar items as listed above – e.g. the size of a standard workstation footprint or an area provision for hub/break-out spaces based on population of a floor or the number of persons per quiet room provision. These guidance points can then be modified in the context of the known, or envisaged, business models of the groups to be accommodated to form a project brief.

There are unlimited further levels of detail that might be prescribed in fit-out manuals. However, agencies should bear in mind that predictions and prescriptions, particularly at a detail level, can rapidly become outdated and be of little practical value.
C.D.1 Case study Department of Human Services (DHS)

C.D.1.1 DHS, Caroline Chisholm Centre, Greenway ACT

<table>
<thead>
<tr>
<th>Completed</th>
<th>2008</th>
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| Area            | - around 40,000m² NLA and  
                 | - around 34,000m² Usable office area (UOA) |
| Number of Workpoints | Approximately 2,400 |
| Storeys         | - North wing 5 storeys  
                 | - South wing 4 storeys |
| Building facilities | - Main Street (Atrium) – 5 storeys high  
                       | - 150 seat theatre with TV facilities  
                       | - Range of highly flexible corporate meeting rooms in the main street for 20 – 100 people  
                       | - Kiosk in the main street in front of the secure perimeter  
                       | - Cafe on level 2 linked to the main street  
                       | - Informal meeting spaces throughout the main street  
                       | - DHS National Crisis Coordination Centre  
                       | - Undercroft parking for 150 cars |
The Caroline Chisholm Centre was completed in 2008 as the National Support Office for Centrelink, now part of the Department of Human Services (DHS). The property incorporated activities that were previously housed in 12 different buildings spread across South Canberra. The intention was to develop an office environment that would facilitate a high level of interaction and collaboration among staff and communication between staff and management.

To encourage the desired levels of interaction and collaboration the building included an atrium style main street through the centre of the building (as pictured in the cover page). This approach has helped to create an environment that encourages collaboration, communication, information flow, and ultimately enhances staff wellbeing. The building’s key amenities, lifts, cores and meeting rooms are located within or adjacent to the main street bringing a high level of activity and ‘energy’ to the main street. The design also allows parts of the main street to be used as ‘town hall’ style meeting areas.

Locating most meeting rooms in or near the main street or adjacent to primary circulation zones on each level underpins their identity as corporate facilities and helps to prevent business group exclusivity over these spaces. It also tends to preserve these spaces when accommodation loads might bring pressure for their conversion to office space.

The overall building form and main street concept have proven to be successful in the Caroline Chisholm Centre. The designs for the new DHS facilities at the Louisa Lawson Building at Greenway, ACT and the Doris Blackburn Building at Forrest, ACT are modelled on the Caroline Chisholm Centre design and take into consideration lessons learnt there. Elements of the model which didn’t work as well as expected have been removed or improved and aspects which worked well were brought into the new designs, occasionally with improvements. These are discussed further in this case study.

Technology

The design for the Caroline Chisholm Centre included access floors throughout the north and south office wings for ease and flexibility of re-cabling for churn events. In the new DHS 26,000 m2 Louisa Lawson building, currently under construction, access flooring was initially investigated. However, it was evident that using a generic fit-out, even in a high churn environment, access flooring did not deliver value for money.

Within the ceiling spaces of the Caroline Chisholm Centre, lights and air conditioning registers are connected by flex to a grid of outlets mounted on the underside of the slab above, and sprinkler heads are mounted on stainless steel flexible pipes connected to rigid mains pipes. The flexible connections for these services provides a high level of flexibility and economy when office layouts are changed. This ‘services flexibility strategy’ has been taken further in the new Doris Blackburn and Louisa Lawson buildings where almost all general building service delivery points will be connected via five metre flexible connections. This will include mechanical, electrical, Emergency Warning and Intercommunication System (EWIS), lights and lighting sensors. Fire sprinklers will be on a 1,500mm flexible connection to allow compliance with the National Construction Code (NCC). This level of flexibility allows churn to occur quickly and at very low cost.
**Office layout**

The office spaces are located in north and south wings of the Caroline Chisholm Centre. The floor plates are 150 metres long by 25 metres wide with gross area of 3,750m² each. They are free of service cores, lifts, toilets and escape stairs which are mounted to the outside of the building. The result is large clear floor plates that provide a high level of flexibility for the tenant.

Offices are provided to SES officers only, resulting in the majority of staff working at workstations in an open plan office environment. The number of enclosed offices in the building is relatively small. All workstations are the same size and configuration.

The Caroline Chisholm Centre provides an example of the flexibility to be derived from a generic fit-out, built zone and workstation layout. In the period from 2010-12, as a result of the integration of the four lead agencies, churn within the department’s ACT office sites was around 300% in the Caroline Chisholm Centre. During this period DHS only had to alter a handful of offices and workstations it was also reported that only 10 offices were added over the four year period from 2008 to 2012.

Workstations have a traditional 90 degree (or L-shaped) style 1,800 x 1400 mm with a desk height mobile pedestal for personal storage. Team storage units are 900mm long and distributed evenly through the work area, generally along circulation routes.

Offices are created using full height demountable partitions that are reconfigurable and reusable. This type of system comes at a relatively small additional preliminary cost. Note that the early models of these walls had poor sound isolation and this has been addressed in current installations (see further detailed discussion under ‘Future Developments’ below).

**Modularity**

To enhance flexibility during churn, DHS required that no partition should be fixed to the building structure. This helps to minimise patching and repair of columns and wall surfaces when partitions were removed. In addition, all storage and utility joinery is free standing and in modules that allow easy relocation and movement by a maximum of two people.

In the new Louisa Lawson and Doris Blackburn buildings, DHS has developed these principles further, including deriving the principles that: all enclosed offices should be modular in construction with a typical office able to be erected by two people in less than four hours; power, data, Master Antenna Television System (MATV) and AV are to be soft wired; partition panels can be un-clipped and relocated by the Facilities Team; there is to be no fixing to the ceiling grid, walls or floor; reconfiguration should generate no waste to landfill, and all workstation furniture components are also to be modular so that they can be configured quickly and easily to suit the preferences of users.
Security and visitor welcome

In the Caroline Chisholm Centre a security line is located part way along the ground floor main street. A range of suitable facilities are located in the public zone of the building which include: the reception counter; concierge, a suite of meeting rooms and; the kiosk. This promotes interaction with non DHS people without the need to sign in to the building. This also encourages the public use of the coffee shop.

Practical Solution

The Caroline Chisholm Centre is a successful government office building that has coped with major changes in an agency/tenant’s organisational structure without any significant change in the physical layout of the building. The fact that the design principles adopted in the building are being replicated in new DHS buildings is testimony to the success of the original strategy.

Future developments

DHS aspires to internally manage churn and maximise flexibility in its new fit-outs rather than relying on external contractors. By partnering with suppliers, a new workstation design system and a new office enclosure system have been created resulting in a highly flexible modular style rectilinear workstation measuring 2,100 x 800mm with a 2,100mm central spine screen and wing screens of 1,500mm (see photograph below).

There are also a range of desk return options that allow a mix-and-match approach to the workpoint configuration for those with non-standard, or high paper use needs. These include: a height adjustable return, 700 long by 600mm deep, which the smaller storage unit can sit under; a 1,400 by 600mm desk return; and sit-stand desks.

Figure 44 - 'Department of Human Services’ new workstation
DHS have also created a tool-less office environment in which no tools are needed to:

- add or subtract workstation screens
- change the handing of desks or underslung CPU cradles
- change the cable management on or in workstation screens
- adjust a monitor arm’s location or tensioning
- change finishes of full height office partitions
- change the location of services in office partitions (for example, the location of electronic whiteboards or wall-hung TVs).

To cost-effectively manage churn it was recognised that there were benefits in being able to undertake this work with internal staff, or utilising a range of ‘non-proprietary’ contractors. DHS staff/contractors are trained each year by the suppliers on installation, alteration and removal of workstations, without affecting the 10 year product warranties.

For ease of servicing from the front of the workstation desk, the CPU is mounted in a holder that is fixed to the underside of the workstation and is easily rotated or moved from one side to the other. Some degree of user customisation of workstations is supported, for example a user is able to adjust: the orientation of the desk; the orientation of the monitor arm(s) or; the position of screen hung and desk mounted accessories. Occupants may also choose to sit facing the spine of the workstation or facing other users in the cluster for a more collaborative approach.

Workstations have height adjustability in the range from 610mm to 900mm which can comfortably accommodate approximately 99% of people (the standard height adjustability range excludes the known rate of sit-stand workstations). Desks are fitted with a two track rail at the back of the desk, the first track allows items such as monitor arms, telephone trays, notebook/laptop trays and power-rails to be clipped onto the desk and the second track is used to accommodate excess cables. Extensive advice on the ergonomics of the proposed furniture was provided by one of Australia’s leading ergonomists. The ergonomist endorsed the designs and the proposed products as being user friendly, promoting user flexibility and suitable for almost all types of office based work.

The ergonomist recommended only one monitor per monitor arm be used, with the monitor able to be pushed back against the workstation screen and out of the way as required.

Each workstation is supplied with a desk height mobile personal storage unit that is not handed plus a small mobile 500mm high storage unit that includes padding on top so that it can be used as a visitor seat.

DHS decided not to use access floors in these fit-outs, after weighing up the substantial costs against the benefits observed at the Caroline Chisholm Centre. To continue to support a high level of flexibility in the new fit-outs, DHS designed a ceiling box, similar in principle and function to a floor box, where workstations and offices can plug and play via the power and data connection points in the ceiling boxes. The in-ceiling services’ flexibility in the new buildings has been further enhanced to include soft-wired power, data and MATV for use in the demountable offices and meeting rooms.

The demountable office system is also a product of collaboration with the supplier. The system uses a clip-on, clip-off panel system with the panels suiting a standard floor to ceiling height of 2,700mm. Add-on panels are used for non-standard floor to ceiling heights. Two standard panel widths are available, that is, a standard 1,175mm wide panel or a half sized panel. The system is capable of up to 60mm of height adjustment to cope with uneven floors and this can be increased if required. The large height adjustability range allows partitions to be relocated across floors and between properties. Top hung sliding doors are standard to offices and meeting rooms and the style of door avoids the need for fixed floor tracks. As a result, flooring finishes are not damaged and rectification is not required when panels are demounted.
The partition system has been designed to avoid damaging the ceiling grid by using a mechanism that fixes itself over the ceiling grid. The finishes used by DHS to create the system are all ‘off-the-shelf’ items with white melamine panels, glass panels and white powdercoat partition extrusions used. A wide range of other finishes is also possible. The system includes a range of other functional panels, for example:

- magnetic colour-back glass whiteboard panels
- pin board panels
- electronic whiteboard panels (with power and data) which allow for USB connection to computers
- television panels with power and data allowing connection to the computer
- accessory panels
- fixed shelving above the workstation.

The sound attenuation performance of partitioning is measured using the Weighted Sound Reduction index (Rw). The full height demountable partition system used in the new fit-outs has an Rw value of approximately 28 as an ‘off the shelf’ product. The inclusion of insulation between panels can lift the system Rw rating to approximately 35. In the new fit-outs only partitions between offices or between offices and meeting rooms are being treated to Rw 35.

As part of the full height demountable tender evaluation process for the partition system, suppliers were required to dismantle their prototype office and re-erect it in a very different configuration. This process was timed to assess and compare the demount/remount capabilities of different systems. The successful product was reconfigured in approximately four man hours, with no resultant waste.

DHS has implemented a bar-coding system to streamline inventory tracking and planning future works.

DHS is moving toward being more flexible with its technology, with the buildings being fully enabled with Wi-Fi and VoIP telephony systems by mid-2013, providing staff with more mobility to move around the general office space and use the different collaborative and social spaces.

Across the Department’s ACT based sites meeting and conference facilities are perceived to be in high demand however, this is hard to validate across a total day. DHS is installing a ‘meeting room management system’ to accurately track and report the usage patterns of these facilities.

The Louisa Lawson and Doris Blackburn building fit-out designs leverage off the concepts of the Caroline Chisholm Centre and they have an increased focus on collaboration, information flow, increased efficiency, flexibility and staff satisfaction. Outcomes of this have included the expansion of the main street theme to all floors within buildings and increased provision of collaboration areas.

In the new Greenway office, DHS will be installing a pilot Flexible Working Environment area to house the 80 Corporate Support staff. This area will feature areas where work can be carried out at traditional workstations, in team zones, quiet zones, multimedia areas, or in formal and informal meeting areas. The area will not have allocated (or assigned) workstations or an office for the SES Band 1 officer. The design for the pilot area utilises the DHS standard 2,100 x 800mm workstation desk sufficient for all staff to be seated in this arrangement. The area will feature a range of furniture including lounges, meeting pods, touch-down points and high tech meeting facilities.

An example of this is the trial of a collaborative meeting table that connects through a central system up to 6 notebooks/laptops, which in turn connect to 2 television monitors. By the click of a button, users can display material from any 2 of the 6 computers. This is ideal for when staff are working on plans, undertaking tender evaluations, undertaking presentations, brainstorming, reviewing documents, etc. This assists in eliminating the need for paper at meetings.

The Caroline Chisholm Centre into the future

DHS is currently planning to undertake a minor refit of the Caroline Chisholm Centre in 2017 as a part of its upgrade program and intend to use the new rectilinear style of workstation currently being used in the new fit-outs throughout the building.

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34 To rate the effectiveness of a soundproofing system or material, a measure known as the Weighted Sound Reduction Index (Rw), is applied.
C.D.2  Case Study Department of the Prime Minister and Cabinet (PM&C)

C.D.2.1  PM&C, 1 National Circuit, Canberra ACT

<table>
<thead>
<tr>
<th>Completed</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>15,291m² NLA</td>
</tr>
<tr>
<td>Number of Workpoints</td>
<td></td>
</tr>
<tr>
<td>Originally 603 workpoints for 400 staff</td>
<td></td>
</tr>
<tr>
<td>Currently 855 workpoints</td>
<td></td>
</tr>
<tr>
<td>Storeys</td>
<td></td>
</tr>
<tr>
<td>Ground floor plus 4 upper floors</td>
<td></td>
</tr>
<tr>
<td>Two basement levels</td>
<td></td>
</tr>
<tr>
<td>Building facilities</td>
<td></td>
</tr>
<tr>
<td>Communication stair</td>
<td></td>
</tr>
<tr>
<td>Meeting rooms and break out spaces arranged around communication stair and atrium</td>
<td></td>
</tr>
<tr>
<td>Taskforce space</td>
<td></td>
</tr>
<tr>
<td>Cafe on ground floor</td>
<td></td>
</tr>
<tr>
<td>Ground floor meeting rooms outside security perimeter</td>
<td></td>
</tr>
</tbody>
</table>
The Department of the Prime Minister and Cabinet (PM&C) head office, located at 1 National Circuit, is an office building with a Net Lettable Area of 15,291m².

The building has long elevations to the north and south, minimising east and west orientation, thereby satisfying the imperative of energy efficiency articulated in the brief. The building has an internal feature communication stair. The building also has an internal cafe with public access on the ground floor. PM&C is a policy and coordinating agency and reacts to the daily imperatives of Government. In order to satisfy these demands, the fit-out was designed with areas that could accommodate short-term taskforces.

When PM&C first occupied its office building, 603 workpoints were provided for approximately 400 staff, with the balance of un-assigned workpoints being allocated for taskforces. Today PM&C has grown and this expansion has been accommodated primarily by the permanent allocation of previous taskforce spaces and the conversion of 4 workstation pods to 5 or 6 workstation pods. The 2011 PRODAC report identified 855 workpoints.

Due to the fluid nature of taskforces the total number of staff in the building varies frequently. From time-to-time the percentage of staff that are associated with a taskforce at PM&C can be up to 15% of their total workforce.

Taskforces by nature generally require contiguous space that is conducive to enhancing collaboration, whilst maintaining a sensitive environment. To achieve this desired environment, PM&C has been able to provide such spaces by temporarily converting meeting rooms into taskforce spaces. All meeting rooms are quite flexible as they have multiple power and data outlets and include mobile furniture that allows for easy transformation of the space into multi-use rooms for activities such as taskforces. For example, a 20 people meeting room can accommodate approximately 10 to 12 workstations.

PM&C provides offices for EL2 staff and above. However, EL2 staff are only allocated an office if there is one available. A similar approach is taken to SES offices; the SES will be allocated an office that is close to their group so it may be smaller than what is usually allocated for them.

With the requirement for more workstations for their growing number of staff, and to assist with converting the pods of 4 into pods of 5 or 6, PM&C has been reducing the number of printing bays in the open plan office area, eliminating printers where possible and promoting the use of multi-function devices.

PM&C used a 90 degree workstation (2,400 x 2,100 x 800mm) for its initial fit-out although since then it has reduced the size of the 90 degree workstation when adding new workstations to bays. The agency has found that the size of the original workstation was not an efficient use of the available space and the smaller workstations still provided adequate workspace for the needs of staff.

Due to the need to respond quickly to changing accommodation requirements, the Facilities and Accommodation Team is now considered a key component when the agency is establishing taskforces or changes in structures and is engaged and consulted early by management in the planning stages of such activity. The Facilities and Accommodation Team is viewed as an enabler of change.

Since the completion of the fit-out, PM&C has converted some of its break-out spaces into meeting/taskforce spaces. An example of this is on Level 3 (the red level) where the size of the break-out space has been reduced and two meeting rooms added on the window line in front of the break-out space. In all instances of changing the main common spaces on the levels it has maintained the design elements associated with these spaces, such as the feature coloured glazing partitioning that defines each floor. Another example of this is where the agency transformed two small meeting rooms and one large meeting room into permanent office space for taskforces including an SES and two EL2 office offices and workstation pods.

Below are floor plans of the original and current (as at August 2012) fit-outs, the highlighted areas on both plans show the changes to the areas between the two.
Figure 45 - Original floor plan for Level 1 PM&C

Figure 46 - Current floor plan for Level 1 PM&C (August 2012)

Level 1 floor plan provided by the Department of the Prime Minister and Cabinet
Figure 47 - Original floor plan for Level 3 PM&C

Figure 48 - Current floor plan for Level 3 PM&C, August 2012

Level 3 floor plan provided by the Department of the Prime Minister and Cabinet
C.D.3 Case Study Australian Taxation Office (ATO)

C.D.3.1 ATO, 747 Collins Street Docklands, VIC

<table>
<thead>
<tr>
<th>Completed</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>38,375m² NLA</td>
</tr>
<tr>
<td>Number of Workpoints</td>
<td>Approximately 2,600 workpoints</td>
</tr>
<tr>
<td>Storeys</td>
<td>16 storeys in a single tower</td>
</tr>
</tbody>
</table>

**Building facilities**
- General clerical office space with 120 degree workpoint configuration
- SES Band 1 and 2 offices consistent with the small and medium sized meeting rooms for flexibility and movement
- Large, medium and small meeting rooms
- Corporate meeting centre with capacity for 300 staff
- ATO Shopfront capability for face-to-face client contact and advice
- High end technical laboratory for IT forensic analysis and research
The Australian Taxation Office (ATO) moved into their new Docklands premises between May and June 2012 occupying approximately 36,000m². The space provided for approximately 13.5m² per workpoint (fit-out density) which allowed the ATO to meet the previous 16m² per occupied workpoint required by the Australian Government for its density target with approximately 10% vacancy for flexibility to conduct business as areas grow and contract.

The ATO was able to apply their experience from other projects (e.g. the Geelong office) in managing the delivery of the new Docklands premises. A few examples would be:

- The refinements to the base building brief issued to prospective builders and in particular the early notification of more detail covering the Security requirements and facilities for the building.
- The future proofing of office infrastructure such as meeting rooms that are easily converted into offices with installation of modular shelving.

Wayfinder has also been used when communicating to business areas prior to relocation to depict likely work space allocation scenarios.

For each level ATO has created a way finding method which runs through the building by providing each floor with a key colour theme so each level is easily distinguishable from the next. Each level has ample signage to assist staff in navigating the office and enable staff to easily find where they need to go. The architects provided design options which allowed the ATO to use colour and graphics to showcase a number of themes important to the ATO. The photography that was converted into the graphics was done by staff who chose images of things in the community that reflected the contribution made by the ATO to the broader community. The colour and floor layouts were used in sync to allow staff to navigate to all points on the floor.

Figure 49 - An example of the way finding treatment used, illustration provided by the Australian Taxation Office
ATO only provides offices to SES Band 1s and above. In order to make offices adaptable and flexible, SES Band 1 offices and small meeting rooms are the same size. Both the small meeting rooms and SES Band 1 offices have a floor box in the centre of the room (meeting room provision) and power and data around the perimeter of the room (SES Band 1 provision) so they could easily have their function changed. SES Band 2 offices are the same size as two small meeting rooms or one large meeting room. All offices except SES Band 2 offices and above, are not on the window line to allow light to fill the open plan office area and it also allows these areas to be easily interchanged if required.

ATO has contained most of its fixed partitioned areas, with the exception of some large meeting rooms and SES Band 2 offices, to the zone around the core of the building. This allows natural light to penetrate into the open work areas and then, via internal glazing, to the fixed partitioned areas.

ATO decided that the 120 degree workstation (1,500 x 1,500 x 800mm) best suited the building floor plates and what it wanted to achieve out of the fit-out. ATO found that it was quite flexible to its needs as the workstations were free standing elements that could be rotated around the flexible umbilical powder and data reticulation. An example of this is that where the ATO found that a cluster of workstations were not in the correct location, it could easily rotate the workstations to the correct position without having to dismantle the workstations and screens. This type of workstation will be able to grow with the agency and it can easily be reconfigured when required.

On the corporate level (Level 9) the ATO has located its 3 large conference rooms next to each other so that the operable walls dividing them open to allow the space to become one large room. This space also opens onto the milling space/staff hub and kitchen allowing for large meetings and gatherings to occur.

With its large meeting and conference rooms the ATO allowed the staff to select names for each of them after places and people that were significant to the agency. This provided staff with some form of ownership of the spaces. An example of this is the Joan O’Connor Conference Room on the corporate level which was named after an alumni tax officer Joan O’Connor who worked for over 47 years with the Tax Office in Melbourne. She managed the typing pool and the placement of executive assistants. She would take a personal interest in their careers and assist them to gain higher duties or promotions.

The naming of the internal corporate space is used to acknowledge and build on the ATO internal culture and history. This is important to the ATO as it also recognises the traditional indigenous land owners by naming each building with an Aboriginal name. This is included as part of the ATO Reconciliation Action Plan. The name Boornoone (Pronounced ‘Bore Noon ee’) means ‘beginnings’ and supports the consolidation of 5 sites into one; the new Melbourne CBD site.
ATO decided that it wanted its staff to have a view when they were using their Home Rooms/Staff Hubs (break-out spaces) making them feel important to the agency so on all levels the Home Rooms/Staff Hubs are located with a view over Collins Street. These spaces have a high acoustic treatment so that the noise from these spaces cannot affect those in the open office area.

The E-Library is the first for ATO which has full time librarian staff on board to help staff locate, view and search for material. The ATO has made conscious decisions about changing the traditional paper based approach to research and use of the library to online to facilitate a reduction in space, paper consumption and to reflect a changing culture of technological capability.

The eBook Library collection provides access to over 70,000 eBooks covering a broad range of topics, with publications from hundreds of publishers included in the collection. The introduction of the E-Library has reduced the floor space requirement of large libraries to accommodate vast collections of books.

ATO was quite excited about being able to incorporate plants into the fit out from the initial design stage to improve air quality and the feel of the office instead of them being an afterthought and added once it had moved into the space. The ATO has included plants in the open office area, at its entry portals from the lift lobbies, in the staff hubs, at beverage points, and in their informal meeting areas.
Figure 51 - Level 3 floor plan provided by the Australian Taxation Office
C.D.4  Case Study Comcare Office

C.D.4.1  121 Marcus Clarke Street, Canberra ACT

Images supplied by Comcare.
Comcare is a Commonwealth Authorities and Companies Act 1997 (CAC) body under the Commonwealth Department of Education, Employment and Workplace Relations.

Comcare’s fit out at 121 Marcus Clarke Street illustrates the flexible and efficient workplace principles discussed in the Flexible and Efficient Workplace Design Guidance to produce an enhanced workplace culture. The fit out may be described as a ‘hybrid solution’ because it borrows heavily from the Activity Based Working (ABW) style of accommodation in the physical, technological and organisational spheres. Introducing ABW style supporting structures also positions the facility for any possible future move to ABW or non-assigned desking adoption.

**Comcare Mission**

Comcare partners with workers, their employers and unions to keep workers healthy and safe, and reduce the incidence and cost of workplace injury and disease. Comcare has three outcomes that guide their work:

1. The protection of the health, safety and welfare at work of workers covered by the Comcare scheme through education, assurance and enforcement.
2. An early and safe return to work and access to compensation for injured workers covered by the Comcare scheme by working in partnership with employers to create best practice in rehabilitation and by providing quick and accurate management of workers’ compensation claims.
3. Access to compensation for people with asbestos-related diseases where the Commonwealth has a liability.

**Key design principles**

Comcare’s guiding principles for the design of the fit-out are listed below along with notable outcomes.

1. Best practice occupational health and safety
   Occupational health and safety is core business for Comcare. The Comcare office incorporates best practice in occupational health and safety and access – including achieving best practice in disabled access.

   Workstations and other supporting facilities, technologies and practices promote ergonomic, workplace health and safety excellence. All employees are provided with a linear workstation with full sit-to-stand height adjustability range via electronic control – to reduce the risks associated with sedentary work practices. Monitors are mounted on movable arms and CPUs are mounted under the workstations which combine to achieve maximum usability. Communication stairs were built to encourage walking between floors rather than taking elevators, and centrally located utility rooms and breakout spaces encourage the use of shared facilities. Disabled access provisions are at and above Building Code of Australia (BCA) requirement with corridors exceeding BCA standards.

   This strong attention to detail may be unusual but the project outcomes demonstrate it has been a successful approach, indicating transferability to other agencies and their fit-outs. This approach also reflects the strong stakeholder engagement aspect of the delivery process.

2. Client-focused and client welcoming
   This reflects Comcare core business which involves case management of compensation claims. Generous reception and interview zones provide a welcoming visitor and user experience. The client focus extends to the selected location of the accommodation which delivers ease of parking for visiting clients.

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35 Note: these items are not in order of importance
3. Aligning facilities with business needs
Comcare has been conscious of tightly matching facilities to business needs with consultation at the heart of the design process. Provisions for particular spaces and facilities have gone on to be used as example specifications for ongoing Comcare fit-outs.

4. Meeting the Commonwealth density target
which was 16m²/OWP at time of the fit-out
Comcare took account of the Finance occupational density target (for FMA Act agencies) of 16m²/OWP, designing to around 15 m²/WP fit-out density. Although the Commonwealth property occupational target is not mandatory for CAC Act bodies, it represents best practice for Government accommodation. Comcare also has capacity to reduce densities as levels of dispersed-on-floor storage reduce in future.

5. Positioning for developments in workplace flexibility, including for possible future non-assigned workpoints/ABW style operation
While designing to the 16m²/OWP target, Comcare was mindful of the potential future introduction of ABW or non-assigned desking based solutions and they have put in place many of the physical and technological supports that would be needed. For example, the fit-out includes concentrated-work rooms along with formal and informal collaboration spaces. This represents a sound future-proofing approach.

6. Flexible, agile, adaptable and future-proof fit-out
Comcare was aware of building in flexibility in the fit-out wherever possible. For example, modular sized built rooms are used which can be relocated or adapted easily, and technology infrastructure is designed to support future change. Comcare has a near zero dollar churn cost because of standardised workplaces, common storage solutions and the provision of mobile personal storage.

7. Creating a workplace culture that is open and connected to encourage greater collaboration, communication and productivity
The physical configuration in the new property brings the previous multi-storey (eight floors) premises together in a more open interactive arrangement. Occupants are on three large floor plates of 2900 m² each, which enhances opportunities for whole of premises physical interaction, collaboration and communication. Other improvements, like new internal communication stairs and fewer enclosed offices, contribute to improved visibility, communication and productivity.

Other examples include:
- increased number and variety of meeting rooms with impromptu meeting spaces like booths, standing meeting areas and lounges
- increased number and variety of conferencing options
- Senior Executive Service (SES) offices are more central and visible
- an open and inviting public reception area
- open plan workstation zones for APS and executive level employees
- lively circulation routes with curves and stairs to avoid gun-barrel corridors
- technology that supports mobility including wireless networks, voice over internet protocol (VoIP) phones and multi-function device (MFD) printing solutions
- additional data and cabling for flexibility and to support new and emerging technologies
- built-in potential for digital signage for corporate communications.

8. Ensuring strong consultation, and co-designing delivery process
User and stakeholder engagement processes aimed to maximise worker to workplace fit and to ensure stakeholder buy-in. This is a focus which is recommended in the Guidance and it has generated strong buy-in and good outcomes for Comcare.

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36 Target from 1 July 2013 is 14m²/OWP.
37 Noting that Comcare is a CAC body and therefore meeting the target is not directly required.
38 Because Comcare is a CAC body, it has not completed PRODAC measurements and reporting. Therefore occupational and fitout densities presented here are Agency best estimates only.
39 Storage levels may be high compared to some equivalent solutions. For example, one under-desk caddy plus one 60cm wide storage unit are provided to each desk. This might be cut back to the caddy only in future and this would help bring occupational densities nearer to 14m²/OWP.
9. Creating an exemplar design as a guide in future fit-outs

Comcare has applied the physical, technological and workplace culture design principles to their ongoing refurbishment and fit-out program. Comcare has used the same design team for subsequent fit-outs, which has ongoing efficiency and cost benefits and builds corporate culture.

10. Maximising environmental sustainability

Conscious of the impact on the environment, Comcare has committed to a workplace design that maximises environmental sustainability. The fit-out targets a 4.5 star NABERS rating. Practical inclusions include strong recycling provisions, use of recycled materials in the fit-out and plants for air quality and visual amenity.

11. Maintaining security

Maintaining security was a priority, particularly with Comcare operating in a workers’ compensation casework environment and interacting with clients. For example, collaborative and social zones outside the secure zone were created, and within the public zone additional security features contribute to the safety of Comcare workers and the public. A specialist security consultant was engaged and contributed to the design development.
### C.E Glossary

**Note:** *Italicised terms* relate to PRODAC or other Commonwealth property framework defined terms. Some of these terms may have a separate industry usage (e.g. ‘tenancy’, ‘property’, ‘lease’).

**Note:** Un-italicised terms are terms that are not defined for PRODAC or other Commonwealth Property Framework usages.

<table>
<thead>
<tr>
<th><strong>Term</strong></th>
<th><strong>Definition</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accommodation Manual</strong></td>
<td>See the Property Management Planning Guidance (January 2010). <strong>Note:</strong> A fit-out manual may be part of an agency’s accommodation manual[s]. In this document ‘Accommodation Manual’, as defined in the Property Management Planning Guidance, incorporates guidance on procedural and physical elements of accommodation provision. ‘Fit-out manual’ is used to refer to documents that are primarily focused on defining standards for physical elements of accommodation solutions.</td>
</tr>
<tr>
<td><strong>Accommodation Register</strong></td>
<td>This page on the Govdex website hosts agency postings of properties with all or part of a leased or owned space available for other agencies and postings by agencies seeking space to occupy. See <a href="https://www.govdex.gov.au">https://www.govdex.gov.au</a> and navigate to: Dashboard/Accommodation Register.</td>
</tr>
<tr>
<td><strong>Activity Based Workplace</strong> (ABW)</td>
<td>ABW is a contemporary workplace philosophy which promotes a more flexible work environment, including workplaces that are away from the normal office that aligns workers with tasks rather than aligning workers with assigned fixed workpoints.</td>
</tr>
<tr>
<td><strong>Area (office area)</strong></td>
<td>There are a variety of methods of office area measurement in the construction industry and in PRODAC. NLA, defined by the Property Council of Australia (PCA) and Usable office area (UOA) defined in PRODAC are the ones most referenced in this Guidance but there are others. <strong>Note:</strong> The inclusions and exclusions for various office area types vary and this may affect comparability of efficiency figures across properties, agencies and the property sector in general.</td>
</tr>
<tr>
<td><strong>Churn</strong></td>
<td>For the purpose of this Guidance, churn refers to the physical relocation of assigned occupants between workpoints within accommodation.</td>
</tr>
<tr>
<td><strong>Churn Rate</strong></td>
<td>The number of people relocated, usually within a property or part of a property such as a floor in a building, over a period of time, commonly a year or financial year, expressed as a percentage of the average total number of occupied workpoints for the period. <strong>Note:</strong> ‘Churn rate’ is not an official metric of PRODAC. The term is used in this document as an industry accepted measure of the rate of change, and the level of changeability, in the assignment of office accommodation. The term is useful for agencies in monitoring, understanding and managing churn levels.</td>
</tr>
<tr>
<td><strong>Commonwealth Property Data Collection</strong> (PRODAC)</td>
<td>See PRODAC specifications.</td>
</tr>
<tr>
<td><strong>Cultural change</strong></td>
<td>Cultural change in this Guidance refers to moving away from a ‘traditional workplace’, such as fixed, on-going assignment of workpoints, work teams or work hours.</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>‘Design’ in this document is generally used in the widest sense of the term. That is, it encompasses the ‘design’ of the operating and technological ‘structures’ of the accommodation solution as well as the design of physical accommodation.</td>
</tr>
<tr>
<td><strong>Desk</strong></td>
<td>A table suitably designed for writing or reading which can sometimes have a sloped top. <strong>Note:</strong> ‘Desk’ is not directly defined in PRODAC but ‘workpoint’ is defined there with mention of a desk. See PRODAC specifications.</td>
</tr>
<tr>
<td><strong>e-commuting (also e-working)</strong></td>
<td>See teleworking.</td>
</tr>
</tbody>
</table>
**Environmental performance**
See EEGO policy for former government property performance and reporting requirements. (See A.6.4 Energy efficiency – NABERS/Green Star ratings for discussion).

**Efficiency**
In this Guidance, the term efficient usually refers to efficiency in the use of space. In this context, a high ratio of occupants per floor area is considered ‘efficient’. The Australian Government’s occupational density target of 14 square metres [m²] of usable office area [UOA] per occupied workpoint [OWP] provides a guide for agencies on an efficient rate of office space use.

**Fit-out**
*Noun and verb.* Physical office accommodation or the process of providing physical office accommodation, within a structural/environmental enclosure - usually an office building. A fit-out includes interior elements such as partitioning, flooring, ceilings and workpoints as well as provision for the delivery of environmental, electronic and other services. A fit-out is usually provided to cater to the requirements of a particular occupant group but it may also be provided as generic office accommodation.

The structural/environmental enclosure may or may not be created with a particular fit-out designed or envisioned. Most commonly the enclosure is provided as a generic space but bespoke building may occur in some cases.

**Fit-out density (FOD)**
See PRODAC specifications.

**Fit-out manual**
A document primarily focused on defining standards for physical elements of accommodation solutions. This may include standard space provisions as well as standard inclusions for services, furnishings and fittings.

*Note:* See also ‘Accommodation manual’.

**Flatter Structures**
Where the role of management has been redefined allowing for a more devolved decision making process.

**Flexibility**
Flexibility as discussed in this document generally refers to the ease with which agencies can adapt their accommodation to suit changing business needs. Flexibility is also used in the Guidance to refer to the capability of the technological, organisational and physical workplace to provide a worker with options on how, when and where they work, to enhance worker engagement, productivity and work/life balance.

**Flexible working environment**
A DHS term for its implementation of ABW style accommodation.

**Hotelling**
*Noun.* The practice in a workplace of sharing a single work space among several employees, particularly when each individual employee spends much of the time out of the office. Also, ‘hoteling’. (Source: Macquarie online dictionary).

*Note:* ‘hotelling’ and ‘hot-desking’ are often used interchangeably but some references differentiate hotelling as allowing booking of workpoints whereas hot-desking usually would not include this.

**Hot-desk, hot-desking** *(sometimes unhyphenated)*
*Noun or verb.* The sharing of a desk [or a desk that is shared] between a number of employees, especially those whose job takes them out of the office on a regular basis. (Source: Macquarie online dictionary).

*Note:* ‘hot-desking’ and ‘hotelling’ are often used interchangeably but some sources differentiate hotelling as allowing booking of workpoints whereas hot-desking usually would not include this.

**Integrated fit-out**
Where the tenancy design and construction is fully coordinated with the base building. This includes finishes, services and fit-out to all areas, common and tenancy, with services fully installed at each floor. The definition of integrated fit-out for the purposes of Green Star is a tenancy space where:

All ceilings, floor coverings, lighting systems, mechanical, electrical and hydraulic services, partition walls, and finishes are installed.

(Source: Greenstar definition.)

**Lack of amenity**
See PRODAC specifications.

**Lease**
See PRODAC specifications.

**Leased-out area (LOA)**
See PRODAC specifications.

**Machinery of Government (MoG) change**
**Non-assigned desking**
A workplace arrangement where each worker is not assigned to a particular physical workpoint in a physical workplace on an ongoing basis. Conversely, assigned desking is the more familiar, traditional approach where one worker is assigned to one workpoint on an ongoing basis.

**Non-office area (NOA)**
See ‘usable office area’ in PRODAC specifications.

**Office area**
See ‘Area (office area)’ above.

**Office work**
See PRODAC specifications.

**Occupational density (OD)**
See PRODAC specifications.

**Occupational density target**
See PRODAC specifications.

**Occupied workpoint (OWP)**
See PRODAC specifications.

**Open office planning**
An environment that makes use of large open spaces and utilising furniture systems such as workstations while minimising the use of small enclosed spaces such as offices.

**Person, people, ASL (Average Staffing Level) (s), occupant(s))**
Varies. **Note:** Methods of counting individuals in a workplace can vary widely. People/occupants/etc. might refer to: a number of people assigned to a workplace or workpoints; people logged on in a workplace; people who have swiped into a building; people who are employed but not on leave; staff but not contractors; permanent staff but not casual staff and so on. PRODAC, for example, counts physical occupations plus signs of life at workpoints at a point in time (see PRODAC Specifications).

**Caution:** The variety of possible ways of counting workers/occupants, along with the range of possible methods of measuring office area (see area above) can make comparisons of occupancy rates (e.g. area per person) across different studies unreliable.

**Property**
See PRODAC specifications.

**Saturation of cabling**
Multiple outlets for power and possibly data for people to plug into.

**Teleworking (also e-working, e-commuting or telecommuting)**
To work from a place other than an assigned workplace, for example, from home, an airport-lounge or a non-home office and communicating via electronic means.

**Tenancy**
See PRODAC specifications. **Note:** This is an example where the term may be used in an industry standard way or as defined for PRODAC (not both). Generally in this document it is used as an industry standard term.

**Touch-down**
A desk, space or area within a physical workplace designated as a desk where a worker can locate and work for a usually short, non-ongoing period. A touch-down may include hard linkage facilities for phone/data though provisions might be wireless. Chairs, work-surfaces or screens may also be provided though again these may not be provided universally. Touch-downs are often provided for visiting workers or contractors. **Note:** this term is mentioned in the PRODAC specifications but not defined there.

**Traditional workplace**
In this Guidance ‘traditional workplace’ refers to an ‘assigned-desking’ based accommodation model. This is the most historically familiar office model where desks are assigned to individual workers on an on-going basis.

**Usable office area (UOA)**
See PRODAC specifications.

**Workplace (Workspace)**
A place of employment (source: Macquarie online dictionary). **Note:** In traditional accommodation the dictionary meaning applies. But where work may be carried out away from an assigned workpoint in an assigned workplace on an occasional or ongoing basis and, in an ABW environment, what is a ‘workplace’ may be less clear.

**Workpoint (WP)**
See PRODAC specifications.

**Workpoint vacancy (WPV)**
See PRODAC specifications.

**Workstation**
A work surface with associated facilities, possibly including: a chair, shelving, storage, desktop computer, phone, screening and the like, provided for an individual to undertake work in a workplace usually on an ongoing basis. Traditionally workstations are not easily relocatable except by tradespeople. **Note:** PRODAC defines a workpoint with mention of a ‘workstation’.
C.F Appendix F - References and related documents

Throughout this document there are a number of reference documents which an agency may consider acquiring for reference. These include:

- **Workplace health and safety standards** - information on workplace health and safety standards law and compliance can be found at [www.comcare.gov.au](http://www.comcare.gov.au)
- **Energy Efficiency in Government Operations (EEGO) Policy** which can be found at [www.climatechange.gov.au](http://www.climatechange.gov.au)
- **Disability Discrimination Act 1992 (DDA)**
- **The Disability (Access to Premises – Buildings) Standards 2010 (Premises Standards)**
- **National Construction Code series (NCC)**
  - **Volume 1 and 2 - Building Code of Australia (BCA)**
  - Australian Standards, in particular:
    - **Australian Standard AS1428.1 – Design for access and mobility – Part 1: General requirements for access – New building work**
    - **Australian Standard AS/NZS4586 - Slip resistance classification of pedestrian surface materials**
    - **Handbook 197 (1999) - An introductory guide to the slip resistance of pedestrian surface materials**
    - **Australian Standard AS/NZS4442 – Office Desks**
    - **Australian Standard AS/NZS4438 – Height Adjustable Swivel Chairs**
- **Commonwealth of Australia -Department of Finance and Deregulation (Asset Management Group), Commonwealth Property Management planning Guidelines, Financial Management Guidance, No 16, Attorney-General’s Department, Barton, ACT, 2009**
- **Commonwealth of Australia -Department of Finance and Deregulation (Asset Management Group), The overview of the Commonwealth Property Management Framework, Financial Management Guidance, No 13, Attorney-General’s Department, Barton, ACT, 2009**


