



Infrastructure and Office Fit Outs Standards 2022:

*Fiji's Outsourcing
Industry*





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1.0 Introduction

These suggested standards form part of the context as a guide for tenants, developers that integrates policies, process, activities, and guidelines for agencies in relation to establishing office accommodation needs, acquiring and fitting out suitable space, utilizing that space effectively and managing the accommodation-change process.

Compared with major capital assets such as buildings, roads, and dams, the fit out of the office workplace has a shorter life cycle. Whereas major assets have life spans of 30 or more years before refurbishment or adaptation, office fit outs have a shorter physical life of up to 15 years, but are likely to be adapted and reconfigured several times during that period.

It is therefore important to ensure that, not only is the initial fit out investment appropriate functionally and financially, but also that the fit out is designed and constructed for adaptability and functional change in the most cost-effective way.

These standards are consistent with office accommodation related questions and queries potential clients may have pre occupation or signing a tenancy agreement.

These standards align with the Fiji National Building Code FNBC/NZS/AS Office Fit out Guidelines.

2.0 Objectives

The objective of these standards is to promote and support the provision of commercial office accommodation that is:

- Safe, healthy and legislatively compliant
- Functional and cost-effective
- Consistent, equitable and sustainable
- Adaptable to new ways of working and new technology.

3.0 Application

These standards provide general and specific recommendations for the design and construction of appropriate commercial office accommodation.


It is a guide that can be used by the tenant and the building owner.

3.1 Legislation

Certain legislation applies to office fit out design and construction. For example, office fit out must comply with the Workplace Health and Safety Act 1995 and associated regulations, the Building Act 1975 and incorporated regulations and codes, the Commonwealth Disability Discrimination Act 1992 and the Anti-Discrimination Act 1991. Agencies are responsible for compliance.

4.0 Design principles

The design principles cover a diverse outsources and shared services industry.



The key characteristic of office accommodation in the future is likely to be the provision of a more flexible workplace. It is suggested that the office will become a place of creativity and ideas rather than a center for routine processing activities. To achieve this transition, the workplace needs to facilitate high levels of interpersonal communication for teams and project groups, and maintain a work environment that supports individual tasks. In addition, the workplace must support organizational reconfiguration and be adaptable to new ways of working.

The implication is a move away from workplaces that reflect organizational hierarchy and towards a definition of space, accommodation standards and fit out design based on users' needs. This outcome also needs to be achieved within space and cost benchmarks.

There are appropriate design principles that should be applied to the design of office fit out and a number of design strategies that support these principles. The design principles and supporting strategies include:

Design principle 1: Design for standardization not customization

Supporting strategies:

- Incorporate generic planning, modular space standards, generic workstation footprints and generic furniture profiles, finishes and characteristics.
- Plan layouts for consistency with a building's structural grid and the modular dimensions of ceilings and facades.

Design principle 2: Design for connectivity not integration

Supporting strategies:

- Design fit out elements as separate layers that interconnect and can be disconnected and replaced/upgraded. For example, technology and communications systems should be separable from furniture systems, and visual and acoustic screening should be separable from furniture and technology systems.

Design principle 3: Optimize hubs, nodes and zones

Supporting strategies:

- Plan support functions (such as storage, meeting spaces, etc.) as hubs or nodes to increase planning efficiency and encourage social interaction. Introduce 'soft facilities' (such as informal seating) in the form of nodes to encourage informal interaction, networking, sharing and learning.
- Plan layouts in functional zones. Restrict built fit out (partitioning extending to the ceiling) to the zone adjacent to the building's core. Use the building's perimeter zone for open plan areas to maximize natural light and outlook.
- Provide alternative workspaces for staff to accommodate different types of working and varying work styles. For example, provision of space to better support collaboration such as breakout space and team tables and space for concentrated work such as quiet zones located away from the communal areas. The introduction of a variety of alternate work settings in the workplace will better support the diversity of modern work practices and creates for a more flexible workplace.

Alternate Work Setting	Description
Hot desk	A desk that is shared by a number of highly mobile workers who use it only part of the time as they are often at meetings. Either book or 'first come, first served' basis.
Touchdown area	This area supports drop in style working for short stays, with a fixed PC or connection for laptops. It is often placed in circulation zones and could be made available for visitors.
Quiet booths	Semi-open hot desk area located in quieter areas to support concentration work. 'Typically first come first served' basis.
Team table	An adaptable table set up to support laptop use and team working. Table owned by a team or used as a shared 'hot' work setting for a varying number of people.
Formal meeting rooms	An enclosed room equipped with appropriate information and communication technology. Usually a bookable room.
Informal meeting area (breakout space/social space)	Open plan, semi-open or enclosed space with a more informal feel. Usually a non-bookable area.
Quiet zone	Dedicated areas designed to support concentration and reflection, typically with no fixed telephones. Requires protocols for its use to support quiet and uninterrupted work.
Project/creative space	Open or enclosed space specifically for project, team working and workshop activities. Should be set up to support collaborative as well as individual work using mobile furniture and fittings. Set up for laptop use without telephones.
Hub space	Area dedicated photocopying, printing etc. centrally located in partly enclosed space to reduce noise. Could incorporate notice boards and informal meeting areas to provide social and interactive focus.

Figure 1. Example of functional zones

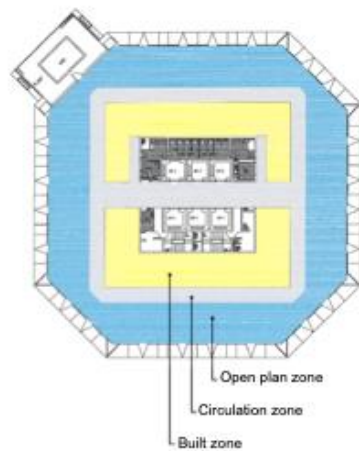


Figure 2. Example of multi-dividable/multi-use built zone modules





Design principle 4: Optimize multipurpose space usage

Supporting strategies:

- Design spaces and rooms to support and/or adapt to multiple uses.
- Incorporate mobile furniture and equipment.

Design principle 5: Design for minimized impact on a building's structure, finishes and services.

Supporting strategies:

- Avoid facilities and functions that are inappropriate for office buildings such as printing shops, photographic darkrooms and archival storage.
- Design fit outs, which are within a building's design floor loading, electricity capacity, heating/cooling capacity and cabling capacity. Avoid functions or processes that affect a building's classification or compromise safety systems.
- Minimize built-in furniture and equipment that is fixed to floors, ceilings, core walls and external walls.

Design principle 6: Compliance

Supporting strategies:

- Design to meet legislative obligations such as workplace health and safety and accessibility.
- Design to comply with government policy.
- Design for consistency with guidelines and benchmarks.
- Design for best practice.

Design principle 7: Sustainability

Supporting strategies:

- Design for ecological sustainability (community, energy, material, water).
- Design for organizational sustainability (cost effectiveness, culture and values).
- Incorporate and formalize ecologically sustainable practices for fit out maintenance and fit out in use (e.g. energy management, waste management, sustainable cleaning products and procedures and sustainable maintenance practices).

5.0 Workspace areas

5.1 General

Office accommodation comprises workspace areas for individuals and teams, support spaces (e.g. meeting rooms, conference rooms, waiting areas, storage, etc) and circulation space.

The areas scheduled herein are recommended maximum areas applicable to the particular function. In a number of cases, less space will be required than the recommended maximums, and in these cases, less space should be allocated based on need.

The proportion of the available area that is to be allocated to support spaces needs to be considered in order to achieve an appropriate workplace density target. In some cases, a trade off might be necessary between personal spaces and support spaces to achieve the required functionality and still meet appropriate workplace density targets. Workplace density is discussed in section '10.0 Benchmarks'.

5.2 Enclosed offices

Individual enclosed offices should be provided only on a demonstrated needs basis rather than by classification.

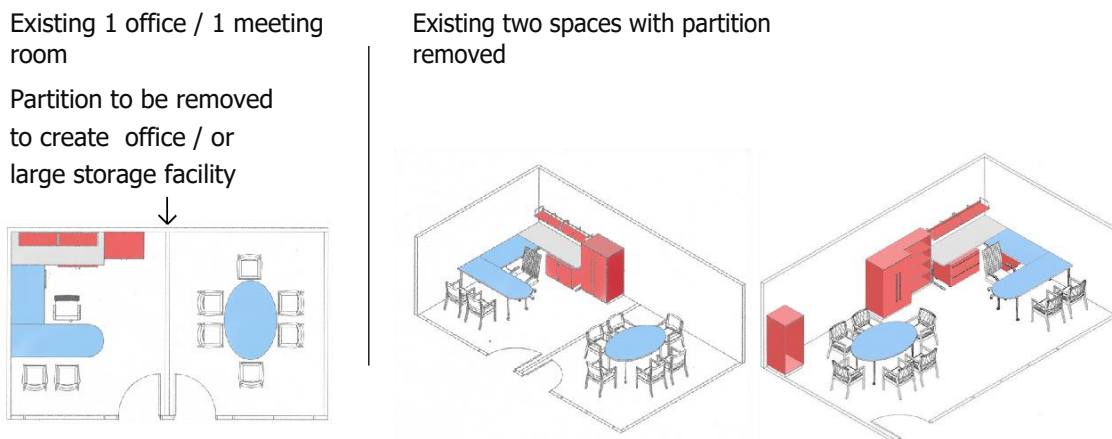
The number of enclosed offices should be minimised to maximise the options for adapting the office layout to new ways of working in future.

The office sizes are based on a module of 1200mm x 1200mm which is the standard ceiling grid module in most office buildings. In the case of non-standard ceiling grids, the nearest modular area to those above should be used.

Individual offices should be located in the built zone adjacent to the building core to preserve the outlook and natural light for other workers. It may be appropriate to use glazed partitioning to maximise natural light and outlook for individual offices and to facilitate effective staff supervision.

Furniture in enclosed offices should be consistent with the modular design of workstations. Custom-designed and built-in furniture should be avoided in individual offices. Curtains and drapes are generally unnecessary.

Figure 3. Example of dividable multiuse office/built zone modules



Free-standing furniture components are included in each of these examples, which provide the maximum flexibility and minimum cost of churn in the future.

5.3 Workstations

Maximum flexibility can be achieved by using generic workstation sizes configured in varying open-plan group layouts to suit teams and functions. Separating groups of workstations with enclosed offices generally should be avoided because it can constrain future changes to the sizes of team groupings and create physical barriers to effective communication between and within group

Workstation systems should consist of separable components that can be reconfigured and reused without requiring multiple trades to disconnect and reconnect services. Soft-wired workstations made up of separate free standing components are highly preferable to integrated, panel-based systems furniture that involves significant disruption whenever workstations need to be rearranged.

Workstation footprints should be modular, with the least number of different variations possible, to allow maximum reuse of components and maximum planning efficiency. Sizing workstations according to function rather than classification is appropriate. Workstations can be motorized to allow stand up use and be configured in a manner that is agile.

Workstations should be based on standard L or U or straight shaped footprints, configured in efficient clusters to suit the workspace. Call centers can have smaller workstation configurations to house high density staff numbers.

Enclosure of workstations can be provided using modular, free-standing screens individually or by group. Lower screens facilitate communication and interaction. As screen height is increased, privacy increases but communication and outlook is constrained. Screens should generally be as low as is practical, but of sufficient height to accommodate screen-based storage if needed in specific cases.

Screens should be kept to heights between 1050mm and up to a maximum of 1650mm high in modular increases of 150mm. 1800mm high screens should not be used.

Screens running parallel to external windows should be kept to a maximum height of 1350mm to preserve outlook and natural light for other workers.

Various workstation footprint clusters are shown in drawings below.

Figure 4. Indicative workstations footprint clusters



Figure 5. Typical workstation footprint—4.8 meters x 10 meters (approximately)

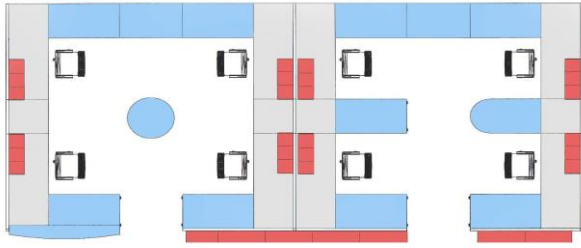


Figure 6. Perspective of workstation cluster type 1

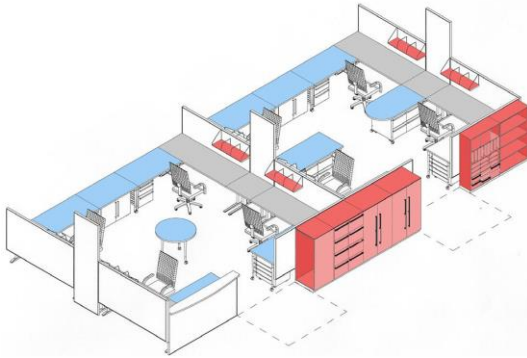
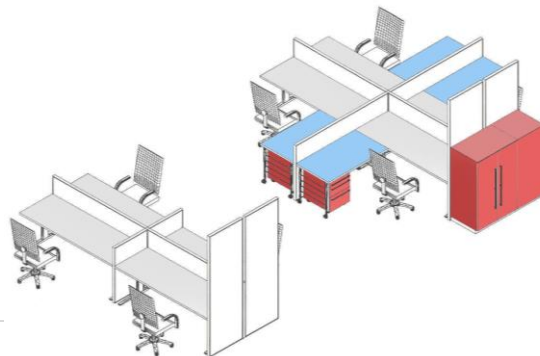


Figure 7. Perspective of workstation cluster type 2



Figure 8. Perspective of workstation cluster type 3 (typical call centre or linear layout) are getting more popular so it can be house back to back work tops in clusters of 4,6 or 8 depending on space considerations.



5.4 Support spaces

Sufficient support spaces should be provided to meet operational requirements but also need to be optimized in number to avoid underutilization of space. Multi-purpose support spaces should be used to avoid duplication and/or infrequent use. Office rent is payable whether the room is used or not.

Support spaces include:

- meeting, interview, conference, consultation and training rooms
- reception and waiting areas and display areas
- registries and customer service areas
- operational (non-archival) reference libraries
- storage, filing and mail processing areas
- special purpose areas needed specifically for non-standard functions - Day Care/Creche centres for kids, parents room, prayer room etc
- innovative areas for social interaction and information sharing.

Conference and meeting rooms

These spaces should be designed as multiples of a standard 'base' module to enhance flexibility. Large conference rooms should be able to be subdivided into smaller spaces for alternative uses. Conference facilities should be shared within agencies and if possible, among agencies. Unless staff training is undertaken on a day-to-day basis, consideration should be given to the use of external training facilities as needed. When training facilities are provided as part of office accommodation, they must be shared, and should also be multi-purpose to maximize utilization.

Recommended maximum areas for meeting and conference rooms are:

Type	Maximum area	Notes
Meeting room (up to 8 persons)	15	Multi-purpose shared use
Conference room (12 persons)*	25	Multi-purpose shared use
Conference room (18 persons)*	32	Multi-purpose shared use

*Conference rooms seating 12 or more must be justified and are limited to one per 1,000m² of office area. Workplace density benchmark targets must be met.

The total seating capacity of all meeting and conference rooms and interaction areas should not exceed 50 per cent of the total staff number in each tenancy.

Reception and waiting areas

These areas should be compact, functional and shared whenever possible.

Registries and customer service areas

These areas need to be designed to incorporate and/or adapt to new ways of service delivery and new technology. The requirements of the disable accessibility initiative must also be incorporated.

Libraries

These facilities should be limited to operational libraries (day-to-day use). Archival materials or rarely used reference material should be kept in a separate and more economical location.

Storage

Storage can be classified into active, intermediate and archival types. Active (or operational) storage is associated with workstation activities and needs to be readily accessible to the user. In this case, access is frequent and forms part of the workflow. Intermediate storage refers to material that needs to be generally available but is not necessarily part of the current work process. Intermediate storage can be more centralized. Archival storage refers to high-density storage that is needed infrequently. Intermediate storage materials progressively become archival. All archival material should be transferred regularly to lower-cost storage facilities and not kept in expensive office accommodation.

Special-purpose areas

Please refer to part '5.6 Non-standard inclusions'.

Innovative areas

These areas are evolving as part of new ways of working. They are sometimes designed to promote 'constructive inconvenience' to channel people to meeting points where ideas can be exchanged in passing. Other examples are 'work cafes' breakout or hub(kitchenette zones), either stand-alone (in a non-disruptive location) or attached to a conference facility. Professional and expert advice is required in providing and designing these spaces to ensure that their cost is justifiable in terms of organizational value.

5.5 Circulation space

Circulation space consists of primary and secondary circulation areas. Circulation space must be consistent with fire safety legislation and anti-discrimination legislation. Building Act compliance requires that the designed paths of travel for fire safety must be maintained in the approved condition and configuration. Any change to the office layout that affects the designated fire safety circulation must be resubmitted for NFA- National Fire Authority approval. Expert advice must be obtained before any changes to fire safety paths of travel are made. Please contact NFA (National Fire Authority) for advice.


It is not possible to identify circulation space as a definitive percentage of the total office area because of variations in building floor plates and restrictions such as structural columns and walls.

5.6 Unencumbered space

Unencumbered space is defined as clear circulation space with no fixtures or fittings intruding within the space or workplace. The allowance of a provision of a minimum but not limited to unencumbered floor area of 2.3m² for each employee.

Workplace is defined broadly within the *Workplace Health and Safety Act 1996* as any place where work is, or is to be, performed by a worker or a person conducting a business or undertaking (i.e. the whole tenancy).

Based on these definitions, fit out design for office accommodation must ensure provision of 2.3m² for each worker out of the total space available. The provision will not require 2.3m² unencumbered space to be provided at each work point, but rather can be included in circulation space, break-out and



reception/meeting areas or other unencumbered floor area and general standards for health and safety are met within the tenancy. Therefore, this allows a degree of latitude and advocates a common-sense approach in how workstations are arranged.

5.7 Non-standard inclusions

This term refers to spaces required for specific, non-standard office functions such as treatment rooms, counseling or prayer rooms, sick bay and rooms needed for special for breastfeeding- Mothers or Parents Room. Careful consideration is required when these types of spaces are proposed to ensure that they are appropriate in an office environment, compatible with other tenants and economically viable.

5.8 Potential inconsistencies

Because office work and office design are constantly changing, some fit out briefs might, on the face of it, appear inconsistent with these guidelines and/or benchmarks, and yet might be needed for a particular purpose.

In these cases, specific project approval in principle is required from an experienced Architect or Interior Designer.

Large projects will require a business case to justify potential inconsistencies.

6.0 Materials and cost

6.1 General

Office fit out materials should be appropriate for office accommodation and take into account life cycle cost factors and capital cost as well as operating costs, cost of making changes, ecological sustainability and community expectations.

When planning office fit out projects, agencies need to be aware of the cost components involved. In addition to the actual construction cost (including furniture), provision must be made for professional design fees, statutory charges and VAT. In some cases, the building landlord also requires a fee for his building services consultants to check the proposed design.


6.2 Partitions

In general, fixed partitions should be constructed from standard 64mm steel studs with a single layer of taped and set plasterboard on each side and a painted finish.

If acoustic treatment is functionally necessary, then this can be achieved with additional layers of plasterboard, acoustic infill or other specialist construction. Bulkheads above the ceiling should be avoided unless absolutely necessary because of their high initial cost, the cost of removal when the tenancy is vacated and the high cost of modifying air conditioning services to suit.

Acoustically treated partitions involve significant direct and indirect costs and should be used only for conference rooms, confidential meeting rooms and senior executive offices.

Complex partition detailing should be avoided unless functionally necessary. Complex detailing includes curved partitioning, drop ceiling bulkheads, display recesses and special finishes.



Glazed partitions should be considered for rooms that require light transmission, visual awareness or have a supervisory function. Examples include individual offices adjacent to the building core, reception areas and some conference rooms.

Locks and hardware must be consistent with the building's standards and master keying system. Locks should be provided only to rooms requiring security, otherwise, latch sets should be used for economy. Card-key and other specialist security locks should be restricted to areas that cannot be properly secured by mechanical locks. Non-standard lock systems can create cleaning issues because of restricted access and need to be addressed with the building manager.

6.3 Ceilings

The standard building ceiling is to be retained and modified only if functionally necessary. If the building's standard ceiling is altered, then it must be reinstated to its original condition when the tenancy is vacated.

Normally, a modular suspended ceiling will be installed as part of the building. All ceiling tiles or finishes altered or damaged by the tenant must be replaced and/or repaired by the tenant.

6.4 Flooring

The floor finishes provided by the building's owner must be utilized except for:

- areas requiring special finishes due to functional needs (e.g., kitchenettes, equipment rooms)
- public interface areas where a corporate/business color scheme is required

It is desirable for the tenant to engage in discussions with the building owner to cater for special finished due to functional needs and HSW requirements, for example, suitability of ceramic tiles for general office areas.

Normally, the building's owner will provide carpet or carpet tiles unless this forms part of New Fit out to suit needs. All carpet or carpet tiles altered or damaged by the tenant must be replaced and/or repaired by the tenant to match to original floor finish when the tenancy is vacated.

6.5 Lighting


The building's standard lighting system should be used, but fitting numbers and positions may be modified as required by the fit out design and/or legislative compliance. All LUX levels to be checked so office space has adequate light.

LED lights are the lighting choice for office spaces as they are better in all aspects when compared to the conventional lighting solutions. They are energy efficient, maintenance-free, environmentally friendly and lasts for up to 50,000 hours. Illuminated spaces with natural elements improve creativity and boost morale as well as reducing eyestrain and headaches.

Specialty lighting should be avoided unless functionally necessary in order to minimize both initial cost and the ongoing costs of replacing non-standard lamps and accessories. All non-standard lighting must be removed at the tenants' expense when the tenancy is vacated.

6.6 Ensuities and kitchenettes

New ensuities (bathrooms and/or toilets) may be provided in new office fitouts. Existing en suites may be utilized to better serve overall efficiency but otherwise should be removed when accommodation



refurbishment or replanning is undertaken. Disability accessible provisions should be considered for toilets / bathrooms.

Kitchenettes involving wet points (water supply and drainage) should be restricted to servicing board/conference rooms directly associated with senior executive areas or to servicing lunchrooms. The building owner may require that any new ensuites and kitchenettes be removed when the tenancy is vacated.

6.7 Lunchrooms and Breakout areas

A break-out area describes any space open to employees or visitors that is separate from their usual working area. It can be a place for employees to relax, eat their lunch and even hold informal meetings. Giving employees a break from a computer screen also complies with health and safety laws which require staff to take frequent breaks from their workstations when computers are being used.

With the right technology and environment, a breakout space can become an invaluable work area. Features to consider when designing your areas:–

Keep noise levels to a minimum: One of the most important things to bear in mind is to keep the break area away from the regular buzz of the office.

Chairs: Consider investing in some comfortable sofas or chairs. A comfortable sofa is the best place to unwind or bean bags and pod seating can provide a change from the standard chair.

Colours & textures: Choose a colour scheme that is designed to encourage relaxation and minimise stress. Light blue and pale green are good choices or yellows. Textures/ living walls can also bring a slice of nature indoors.

Lighting: Keep the break area well-lit. If you don't have a window, use ergonomic lighting to provide adequate lighting to brighten up the place.

Kitchen: Place your kitchen close to the break area. This will give your employees or visitors somewhere to make tea and coffee so they can relax and chat while away from their work. You could also add a bar feature for a more relaxed atmosphere.

Before embarking on designing your breakout area, you might like to consider:

How will the breakout areas be utilised?

How regularly will the breakout areas be used?

What are the barriers / incentives to using certain breakout areas?

How will the breakout areas impact on the adjacent areas?


6.8 Privacy

6.8.1 Definition

In office workplace terms, privacy means:

- optimised confidentiality for the task at hand (facilitating comfort, productivity and interaction but avoiding isolation)
- limitation of distractions and unwanted intrusions (visual, acoustic and territorial).

The concept of 'privacy-sequencing' can provide a range of privacy levels from open plan areas that maximise team-based productivity and collaboration, to casual seating or common areas and to complete seclusion in fully-enclosed rooms. Privacy options can be provided for workers to match varying activities with privacy needs at any one time. The office layout and fitout material selection are



the key factors for achieving appropriate privacy in general open plan office areas. Acoustic and visual privacy are closely related, and need to be considered in conjunction with each other.

6.8.2 Visual privacy

Visual privacy factors include sight lines and barriers. Lines of sight can be managed through layout design and visual barriers can be incorporated as partitions, screens, furniture elements and landscaping. The degree of visual privacy can be further controlled by varying the solidity of barriers. Examples include the use of clear glazing, frosted or treated glazing, adjustable blinds, mesh or lattice screens and solid panels.

6.8.3 Acoustic privacy

Because the choice of material for visual barriers affects acoustic privacy, the two factors need to be considered together. Acoustic privacy deals with managing sound level, speech intelligibility and sound paths.

Tools and techniques for managing these three components include:

- Sound blocking to reduce sound penetration through panels or furniture. This approach requires materials of solid (non-porous) mass. Higher density materials attenuate sound levels more than lighter materials.
- Sound absorption to soak up sound by reducing reflected sound waves. This approach involves using porous, fibrous materials that trap sound waves in a maze of air pockets and absorb sound energy. These materials can be incorporated into fitout components or applied to building elements such as walls, floors and ceilings.
- Sound masking to cover distracting noise. This approach involves introducing sound at specific frequencies and levels to mask unwanted sounds (particularly speech) without becoming distracting itself.

Expert technical and design advice is required to achieve appropriate visual and acoustic workplace privacy.

7.0 Furniture

7.1 General

Existing furniture should be reused except when it is at the end of its economic life, is functionally obsolete or is uneconomical to refurbish or adapt to new uses.


Materials and products should be selected based on economy, durability and sustainability criteria. Locally manufactured products and materials should be used as a matter of preference and supporting local made initiatives.

7.2 Workstation/desk furniture

Standard, modular workstation furniture should be used according to the sizes identified in '5.3 Workstations'. Custom-designed workstations should be avoided unless the building configuration precludes the use of workstations of standard dimensions. Economical and durable finishes should be specified.

7.3 Screens

Screen heights and lengths should be consistent with the dimensions referred to in '5.3 Workstations'. Free-standing screens are preferable to integrated systems which support work surfaces and/or require cabling to be



threaded/unthreaded through enclosed ducts. Glazed panels may be appropriate in specific cases. Acoustic requirements and performance should be considered in the selection of a screen system.

7.4 Chairs

Work chairs should be ergonomically sound, of standard commercial quality and consistent with the work function.

7.5 Furniture for support spaces

Furniture in meeting rooms and conference rooms should be from a standard commercial range, of commercial quality and of standard dimensions. Custom-designed furniture should be avoided except when functionally necessary or when better economy can be achieved. Ancillary furniture in meeting and conference rooms should be free standing to allow economical relocation and reuse.

7.6 Built-in furniture

Built-in furniture and joinery items should not be used unless they are functionally necessary and there are no existing stand-alone furniture items readily available in the market place.

7.7 Mobile furniture

Mobile furniture items should be considered to allow simple office reconfiguration and personalised layout. Mobile storage (e.g. compactors and the like) is generally efficient and cost-effective for centralised intermediate storage. It should be noted that:

- mobile storage systems are heavy and floor loading needs to be checked by a structural engineer
- installation costs are substantial and of a specialist nature
- systems must be professionally removed at the tenant's expense when the tenancy is vacated (unless otherwise agreed).

7.8 Ergonomics


Furniture must be ergonomically suitable for the task and the person performing the task. Substantial degrees of adjustability will generally be required in order to suit the widest range of users. The requirements of persons with special needs must be met and this might require furniture customisation and/or acquisition of special equipment.

8.0 Equipment

8.1 Infrastructure

Basic office building infrastructure will include air conditioning, a standard lighting system to provide average lighting (Lux) levels that comply with legislation, a nominal number or power outlets per floor, primary cabling and centralised connection facilities for data and communication and generic fire safety systems.

Each fit out design will require some modifications or additions to the above building services to suit the configuration of the fitout. In some cases, additional capacity might be required to supplement air conditioning in local areas such as large conference rooms. Any such modifications form part of each



fitout project and must be installed at the tenant agency's cost and also removed at the end of the tenancy (unless otherwise agreed by the landlord).

The installation (and later removal) of secondary cabling for information technology and communications purposes (from the primary connection point to the wall/floor outlet or socket) forms part of the fitout project and is the responsibility of the tenant agency.

Should there be specialized cabling needs, for example, "under floor" or "raised false floors", efforts should be made to discuss options and strategies with the developer or building owner to avoid additional installation or "make good" costs.

8.2 Office equipment

The supply and installation of office equipment (photocopiers, computers, printers, routers, servers, facsimile machines and the like) is the responsibility of the tenant agency. Generally, these items are not included in the scope of the fitout project and are procured separately.

9.0 Value management

9.1 General

Value management is an approach that promotes a systematic search for solutions that provide greater cost-effectiveness without compromising function or service.

In office fitout terms, this approach can be used both to save money and to add value. Cost savings can be achieved through continuous evaluation of design and procurement options, and value can be added through designing fit outs for maximum future adaptability at minimum cost and with minimum disruption.

Maximum reuse and recycling of fitout components should also be a design goal.

9.2 Materials and products

Generally, office fitout materials and products must be of medium to high quality manufacture meeting compliance. Materials and products include, but are not limited to, building materials, fittings, furniture and equipment. Office fitout materials, products, suppliers and contractors should be sourced locally whenever possible.

9.3 Churn management

Design and provision for churn management can be considered a part of value management and the design approach to office fitout can contribute significantly to the effective management of churn in future.

Churn is defined as: the relocation of people within an agency, undertaken in response to changing service delivery and functional requirements. Churn is measured by: the number of people relocated per year, expressed as a percentage an agency's total number of full-time equivalent (FTE) staff.

Effective fitout design approaches for churn management include:

- designing fitouts that will readily support reconfiguration with minimum alterations to partitions and building services
- designing workplace layouts and fitout generically for maximum flexibility and interchangeability

- constructing a centralized core or zone of multi-purpose, shared support spaces for the longer-term in preference to specialized spaces that become functionally obsolete in the short term
- maximizing the use of mobile and/or transformable (multi-purpose) furniture.

The opportunities for best practice churn management arise in the earliest stages of the design process.

10.0 Benchmarks

10.1 Workplace density

The definition of workplace density is the total net lettable area (NLA) divided by the total number of full time equivalent (FTE) staff. This benchmark applies to each separate office tenancy. A tenancy can consist of a part floor, a whole floor or several floors in a building.

The office accommodation workplace density benchmark target for agencies is minimum 6 sqm/person to 12m² per person maximum.

In certain circumstances, this benchmark can be exceeded. For example, small individual tenancies of fewer than 10 people might require more than 12m² per person and some tenancies in heritage buildings might require more space due to planning inefficiency or structural constraints.

- It's a good idea to add an extra **10-20%** of office square metre to account for future growth, as a general rule of thumb.
- In addition to industry, other factors that affect how much office space you need per employee **density**, **geographic location**, employee **age**, and **cost** per square metre.
- Several factors have caused the average office space per employee to **fall by 21%** over the past decade, although the pandemic is reversing the trend.
- Depending on your budget, needs, and workplace culture, common areas that you'll need to factor into total square metre per employee include **conference** rooms, **lunch and breakrooms**, **quiet** rooms, and **storage and file** rooms.


11.0 Special workplaces

11.1 Call centres

The common function of call centres is that of interface between customers and agencies to provide advice and deliver services. The challenge of call centre fitout design is to provide a workplace that integrates people, process and complex (and changing) technology in a way that meets workers' expectations, functions effectively and can be adapted to continually improve the services being delivered.

11.1.1 Building considerations

Call centres invariably involve a high workplace density and intensive technology. Together, these factors place a high demand on building services. Prior to selecting a building for a call centre, it is essential that the building and its services are assessed by building professionals.



Building attributes and services that need to be assessed include:

- floor to ceiling height
- air-conditioning capacity and controls
- power capacity and electrical distribution
- lighting system- with consideration of solar lighting which could contribute to green ratings
- cable reticulation capacity and distribution paths
- Fibre optic access for fast internet speed etc
- acoustic performance
- lifts
- fire safety systems and emergency egress including stairs
- amenities, such as toilet adequacy for the number of staff taking into account the gender mix of staff

- Back up power with generator with water tank provisions

- Provisions of Recycle of rubbish and office waste management

11.1.2 Fitout considerations

Fitout design strategies for call centres include:

- Select large, open floor plates for planning and operational efficiency.
- Use innovative planning layouts rather than continuous rectilinear rows.
- Design for change. (Workstations should be one size and able to be adapted into different configurations easily. Data and communications cable reticulation should be soft wired and layin' rather than hard wired and/or 'thread-through'.
- Consider mobile furniture solutions.
- Screens should be separate from workstations and reconfigurable without affecting other furniture or technology.
- Ensure that technology and cabling are accessible, maintainable, and replaceable.
- Design for ergonomic excellence to avoid musculoskeletal and strain injury risks.
- Ensure that lighting is appropriate for the function and tasks. Indirect lighting should be considered, possibly supplemented with task lighting

Design for noise management and appropriate acoustic performance. As well as the use of sound absorbent materials, 'white' or 'pink' noise can be used for sound masking. (White noise masks a broad sound spectrum and pink noise masks speech frequencies specifically).

- Provide appropriate and comfortable support spaces and amenities for training, meetings, and personal time.
- Design for workers with special needs

11.1.3 Workplace density

Call centers can be designed for legislative compliance, effectiveness and comfort at higher workplace densities than conventional office accommodation. Typically, workstations can be smaller and more closely planned with appropriate design techniques. Large floor plates also provide better planning efficiency.

A workplace density target of 6m² to 10m² per person maximum for call centers is considered achievable.



12.0 Ecological sustainability

The incorporation of ecological sustainability objectives and practices into office fitout design and construction can deliver a healthy and ecologically sustainable workplace with reduced environmental risks.

The sustainability key issues are:

- conservation of resources and heritage
- emission abatement for health protection.

In practical terms, sustainability in office fitout can be supported by:

- Selection of appropriate materials and products. Fitout materials (including furniture) introduced into the workplace should be selected for minimum ecological impact (conservation of resources and emission abatement). Examples include the selection of timber products manufactured from plantation timber or managed forest timber only, selection of materials with minimum emissions (carpets, adhesives, fabrics, paints, etc) and the use of materials with low embodied energy.
- Selection of office equipment such as computers, photocopiers, printers, facsimile machines and appliances based on sound ecological selection criteria including embodied energy, operational energy efficiency, durability and ability to be disassembled and recycled.
- Designing fitout for reuse of components to the maximum extent when changes are required.

13.0 Accessibility

13.1 Legislation

With the Equal Opportunity Act 2010 and **Disability Discrimination Act 1992** places an onus on building owners, managers and occupiers to ensure that they treat people with a disability no less fairly than they treat others. With few exceptions, this legislation obliges the state to ensure that:

- new buildings are designed to be accessible for people with a disability
- existing buildings subject to capital works improvements (e.g. to major fitout alterations or maintenance works) are upgraded to comply with access provisions for persons with disabilities.


13.2 Fitout implication

The implications of this legislation are extensive for office fitout projects. Disability needs to be interpreted in the broadest terms.

The workplace therefore must be accessible for, and usable by, able persons and all categories of persons with disabilities. Persons with disabilities must be not only able to enter the building and the workplace without discrimination, but must also be able to use the workplace and its amenities with opportunity equal to that of able persons.

13.3 Design approach

designed to the Australian/New Zealand Standard AS/NZS 2890.1:2004: Parking Facilities Part 1. These standards are not limited in their coverage to people with mobility impairment, but cover a wide range of disabilities, including sight and hearing impairment.



The most comprehensive design approach is termed 'Universal Design' and aims to design for the widest possible range of ability with as few barriers or constraints as possible.

The achievement of truly universal fitout design solutions for every project may be problematic in terms of the practical limitations of buildings, equipment availability and cost, but the needs of persons with disabilities must be met generally for the broadest range of users and specifically when special needs have been identified.

14.0 Server Room

Unique Design Aspects of a Server Room


A good server room will provide an environment where computer equipment can safely operate in one location so that networking and other activities are made easier and more effective. Understanding the proper setup and configuration of a server room will help with creating and maintaining it effectively.

Based on the complexities of the business, a server room should have some, or even all, of the following design aspects added to allow technical equipment to operate properly:

- **Precise Environmental Control** – A server room should have sensors throughout the area that measure both temperature and humidity. The environmental control systems should also be able to keep the entire room at the desired levels.
- **Airflow Planning** – Servers and other computer equipment generate a lot of heat. A good airflow plan helps to avoid 'hot spots' and eliminates heat from the area so it doesn't cause damage.
- **Fire Suppression System** – If a fire occurs, you don't want to have to spray a server room with water. The water would damage all the equipment, resulting in a huge disaster. There are quite a few options for this type of system including Inergen systems, Novec systems, and FM-200 systems. These are all designed to extinguish fires while keeping computer equipment safe.
- **Cable Management Solutions** – Server rooms can end up with miles of cables. Designing the room to allow cables to properly run through the ceiling, or under the floor, helps avoid huge messes.
- **Redundant Power Sources** – Having redundant power sources is important not only to ensure the equipment remains up and running at all times, but also to avoid power surges that could damage the servers and other items in the room.
- **Physical Security** – Server rooms house expensive equipment and most importantly, store confidential data that will harmfully impact clients and the business if misused. Having the necessary physical security in place to keep it safe is essential.
- **DMARK Location** – Server rooms typically have multiple data circuits coming in, often from multiple different telecommunication companies. Having one location (the DMARK point) where the telco's responsibility ends and passes off to the business is important.

15.0 Office Security

The level of security and access control required by the tenant will vary according to the specific service delivery factors. These may include location,



times of operation, nature of the business conducted, amount of public interface and sensitivity of the data held by the organisation. Typical areas that should be secured include perimeter doors, main computer rooms and unique security facility rooms

As a minimum, all tenants are encouraged to consider the following features based on their business needs:

- Security Systems – CCTV and Alarm systems
- Fire Systems – consider a range of systems that (i) senses the fire, (ii) deals with the fire and (iii) ensures employee safety
- Access Control Systems – a range of systems that controls entry/exit for staff, contractors and visitors based on the building operating design and usage

16.0 Building Resilience

The 4–Rs

To ensure minimal disruptions to service provisions, business owners need to consider and implement the 4-Rs of Resilience which can be characterized by four key features:

- **Robustness:** the ability to maintain critical operations and functions in the face of crisis. This includes the building itself, the design of the infrastructure (office buildings, power generation, distribution structures, levees), or in system redundancy and substitution (transportation, power grid, communications networks).
- **Resourcefulness:** the ability to skillfully prepare for, respond to and manage a crisis or disruption as it unfolds. This includes identifying courses of action and business continuity planning; training; supply chain management; prioritizing actions to control and mitigate damage; and effectively communicating decisions.
- **Rapid recovery:** the ability to return to and/or reconstitute normal operations as quickly and efficiently as possible after a disruption. Components of rapid recovery include carefully drafted contingency plans, competent emergency operations, and the means to get the right people and resources to the right places.
- **Redundancy,** is proposed as another key feature, which mean that there are back-up resources to support the originals in case of failure that should also be considered when planning for resilience.

As a minimum, all buildings should have provisions for:

- Alternate power supply (power generator),renewal energy like solar power
- Water storage
- Communication redundancies

For almost any organization, attracting good quality staff and retaining highly skilled personnel is crucial. This can be done by providing meaningful work, promising career prospects and attractive financial compensation; but the physical work environment can also play an important role. Providing employees with comfortable, attractive surroundings tells them that they are valued by management and helps to make a good impression on job applicants.

17.0 Additional information

Additional information- Commercial Property Building Guide for Tenants. Attached Excel sheet for Agency to use.

Commercial Property Guide for Tenants

Inspected By:

Date:

Location	YES	NO	N/A	COMMENTS
Is the property's address clearly visible from the roadway? Any signage? or way finding...?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the parking available on the property or near by?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there an appropriate number of handicapped spots in the parking lot?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the property close to any public transportation routes or zones where shopping and restaurant/coffee centres are to close proximity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there proper lighting in the parking lot and around the building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there any site conditions that need to be repaired?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are unloading zones clearly marked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there wheelchair-accessible ramps leading up to the main entrance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there handrails leading up to the main entrance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there any obstructions in front of fire hydrants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there a trash dumpster/skip on-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there a smoking zone dedicated? Or are no-smoking signs posted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is Fibre optic cabling available or to close proximity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the property in a flood prone area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Building Exterior	YES	NO	N/A	COMMENTS
Are exit doors unlocked during business hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all entrances and exits properly marked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the company's name clearly visible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the building's roof in good shape?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are windows and doors in operable conditions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Is the building free of vandalism?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are "No Smoking" or Emergency Assembly signs posted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are emergency exits clearly marked and free of obstructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there sufficient lighting on the building's exterior?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the rooftop elevator penthouse properly ventilated and cleaned regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there any cracks or conditions in the building's exterior walls?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are combustible materials kept away from the building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there signs of weather damage?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the parking structure properly maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the gutters free of debris?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Landscaping

	YES	NO	N/A	COMMENTS
Does the landscaping interfere with any utility boxes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there any dead trees on the property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there shade-providing trees on the property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there any areas with dead grass?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is an irrigation system in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are sprinklers placed far away from walkways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are planters properly mulched?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is grass mowed weekly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are mowers/trimmers kept on-site in a locked storage building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are insecticides regularly applied to plants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are flower beds weeded regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is grass fertilized regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Electrical Systems

	YES	NO	N/A	COMMENTS
Are all electrical boxes, outlets and switches properly covered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are electrical panels properly covered and latched?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are electrical panels free of obstructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are extension cords used for temporary uses only?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do any extension cords run through walls, ceilings or doors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do all electrical outlets have covers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Is equipment that requires higher voltage plugged into the proper outlets Or UPS system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there support utilities in the building? Back up power - Generator unit or solar panels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do all outlets located within two metres of sinks and exterior doors include Ground-Fault Circuit Interrupters (GFCIs)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there a lockout procedure in place?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Fire Protection	YES	NO	N/A	COMMENTS
Are there any combustibles stored in any part of the building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all smoke alarms functional?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are smoke alarms tested regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is smoking prohibited in the building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the building have a sprinkler system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the sprinkler system inspected annually?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there a backup water tank provision with booster pump?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are portable fire extinguishers readily available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are fire extinguishers inspected regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are fire evacuation diagrams posted throughout the building?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there "EXIT" signs posted above exterior doors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are flammable and combustible liquids properly tagged and stored?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If smoking is allowed, are smoking areas properly identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Heating/Cooling System	YES	NO	N/A	COMMENTS
Is the plant room kept locked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there any combustible objects kept near heaters?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the building's thermostat kept at a comfortable temperature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are filters replaced regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are heating and cooling ducts free of obstructions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the heating/cooling system set back when the building is Unoccupied?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

	YES	NO	N/A	COMMENTS
Housekeeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is trash removed from the building daily? And from site weekly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are bathrooms cleaned daily?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are windows cleaned regularly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the company have a recycling policy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Are office spaces cleaned weekly ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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Storage	YES	NO	N/A	COMMENTS
Are all combustible and flammable liquids stored properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there any combustible storage in unprotected attics or crawl spaces?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are cabinets and containers containing chemicals properly labeled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are spill-containment materials readily available in case of a spill?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Safety Data Sheets (SDS) available for hazardous substances?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

