

**IPMS** INTERNATIONAL  
PROPERTY  
MEASUREMENT  
STANDARDS

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# International Property Measurement Standards: Office Buildings

International Property Measurement Standards Coalition



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## Welcome to IPMS: Office Buildings

On behalf of the members of the IPMS Coalition, currently 56, we would like to present to you 'IPMS: Office Buildings'. The project is the first of its kind. For the first time numerous organisations from all over the world have come together to create one shared international standard for property measurement. We have recognised that the past practice of inconsistent measurement standards is unacceptable. Our profession and market places deserve better.

For this reason we have come together to support this process and one shared standard. Starting with a meeting at the World Bank in May 2013, we each signed a Declaration confirming we are 'committed to promote the implementation of these standards to encourage world markets to accept and adopt IPMS as the primary method of property measurement'.

After the May 2013 meetings we formed an independent Standards Setting Committee (SSC). The SSC includes technical experts from 11 countries and a combined expertise covering 47 different markets. The SSC worked virtually and also gathered three times, in Brussels, Dubai and Orlando.

The generous donation from the Comité de Liaison des Géomètres Européens (CLGE) of the euREAL standard was the basis of their comprehensive, far-reaching and efficient work. Completing a task of this magnitude should take many years. The SSC produced the complete Consultation Draft of IPMS for Offices less than one year later in January 2014. After ending the Exposure Draft consultation period in September 2014, the final 'IPMS: Office Buildings' was launched in November 2014.

The Coalition accepts that standard setting is a continuous and dynamic process, and will be listening closely to

the market to ensure we capture necessary updates for continued growth and improvement. In addition to preparing further IPMS standards for other building classes (such as residential, industrial and retail), the SSC will also monitor all guidance notes on IPMS to ensure that they are consistent with the principles and intent of IPMS. All local, regional or worldwide approaches will be well documented to allow coordination, expansion and consistency of IPMS guidance whenever required.

In preparing both the earlier consultation documents and this final standard the Coalition wishes to acknowledge the work on the explanatory drawings undertaken by Professor Marc Grief and Johannes Helm of Mainz University of Applied Sciences, and Robert Ash and Tom Pugh of Plowman Craven Limited.

As a Coalition we are also beginning the important work of implementation. We are engaging with governments to adopt IPMS – and we congratulate Dubai as the first government to do so. We are also together, as a Coalition, engaging the many other key market stakeholders. On the [ipmsc.org](http://ipmsc.org) website we have released the list of IPMS Partners – businesses committed to IPMS.

On behalf of the Coalition, the SSC and the numerous participants in the consultation, we are proud to present the IPMS for Office Buildings.

For further information on IPMS please visit the website [www.ipmsc.org](http://www.ipmsc.org)



**Kenneth M. Creighton**, Trustee for RICS, Chairman of the Board of Trustees IPMS Coalition



**Lisa M. Prats**, Trustee for BOMA International, Vice Chair of the Board of Trustees IPMS Coalition



**Jean-Yves Pirlot**, Trustee for CLGE, Secretary General of the Board of Trustees IPMS Coalition

## Introduction

The International Property Measurement Standards Coalition (IPMSC) was formed on 30 May 2013 after meeting at the World Bank in Washington DC. The **Coalition**, comprising at the date of publication the 56 organisations listed below, aims to bring about the harmonisation of national property measurement standards through the creation and adoption of agreed international standards for the measurement of **Buildings**.

This document for the measurement of office **Buildings** is the first prepared by the **Coalition's** Standards Setting Committee (SSC). The **Coalition** members at the date of publication include:

- American Society of Farm Managers and Rural Appraisers (ASFMRA)*
- Appraisal Institute (AI)*
- Asia Pacific Real Estate Association (APREA)*
- Asian Association for Investors in Non-listed Real Estate Vehicles (ANREV)*
- Asociación de Promotores Constructores de España (APCE)*
- Asociación Española de Análisis de Valor (AEV)*
- Asociación Española Geómetras Expertos (AEGEX)*
- Asociación Profesional de Sociedades de Valoración (ATASA)*
- ASTM International*
- Australian Property Institute (API)*
- British Property Federation (BPF)*
- Building Owners and Managers Association of Canada (BOMA Canada)*
- Building Owners and Managers Association of China (BOMA China)*
- Building Owners and Managers Association International (BOMA International)*
- China Institute of Real Estate Appraisers and Agents (CIREA)*
- Commonwealth Association of Surveying and Land Economy (CASLE)*
- Consiglio Nazionale Geometri e Geometri Laureati (CNGeGL)*
- CoreNet Global*
- Council of European Geodetic Surveyors (CLGE)*
- Counselors of Real Estate (CRE)*
- Cyprus Architects Association (CAA)*
- Cyprus Association of Civil Engineers (CYACE)*
- European Council of Real Estate Professions (CEPI)*
- Federation of Associations of Building Contractors Cyprus (OSEOK)*
- Gesellschaft für Immobilienwirtschaftliche Forschung e. V. (GIF)*
- Ghana Institution of Surveyors (GhIS)*
- Hungarian Real Estate Developers Association (IFK)*
- HypZert GmbH*
- INREV*
- Institute of Real Estate Management (IREM)*
- International Association of Assessing Officers (IAAO)*
- International Consortium of Real Estate Associations (ICREA)*
- International Facility Management Association (IFMA)*
- International Federation of Surveyors (FIG)*
- International Monetary Fund (IMF)*
- International Real Estate Federation (FIABCI)*
- International Union of Property Owners (UIPI)*
- International Union of Tenants (IUT)*
- Italian Real Estate Industry Association (ASSOIMMOBILIARE)*
- Japan Association of Real Estate Appraisers (JAREA)*
- Japan Association of Real Estate Counselors (JAREC)*
- Japan Building Owners and Managers Association (BOMA Japan)*
- National Society of Professional Surveyors (NSPS)*
- NP "Cadastral Engineers"*
- Open Standards Consortium for Real Estate (OSCRE)*
- Property Council of Australia (PCA)*
- Property Council New Zealand (PCNZ)*
- Real Estate Syndicate of Lebanon (REAL)*
- Real Property Association of Canada (REALpac)*
- Royal Institution of Chartered Surveyors (RICS)*
- Secovi-SP (Secovi)*
- Society of Chartered Surveyors Ireland (SCSI)*
- South African Property Owners Association (SAPOA)*
- Technical Chamber of Cyprus (ETEK)*
- The Appraisal Foundation (TAF)*
- Union Nationale des Economistes de la Construction (UNTEC)*

The growth of cross-border property investment and expansion by global corporate occupiers underpins the demand for transparency against the background of many differing national and local **Building** measurement conventions. The aim of the **Coalition** is to enable **Buildings** to be measured, and the resulting calculated areas to be provided, on a transparent basis. **IPMS** will promote market efficiency through greater confidence between investors and occupiers by providing consistent property measurements for transactions and valuations.

Research by the **SSC** found that transaction and valuation practices vary substantially across markets and this standard is not meant to remove these differences. The **SSC** has focused only on issues directly related to **Building** measurements and calculated areas within a **Building**. It is acknowledged that different countries use different **Floor Area** elements in transaction and valuation practices. **IPMS** will enable comparison of differing practices by interfacing to a common measurement language.

The **SSC** prioritised setting a measurement standard for office **Buildings** because of concerns raised by those operating in a high-value global market that does not have a global language. The CLGE Measurement Code for the **Floor Area** of **Buildings**, the European Real Estate Area Label (euREAL), provided the starting point. Current terminology used to describe office **Floor Area** (such as rentable, usable, leasable, net internal, net lettable and carpet area) means different things in different markets, resulting in confusion for owners and occupiers working internationally. For example, an organisation occupying 10,000m<sup>2</sup> in one country could find the identical space described as 12,000m<sup>2</sup> in another, or a company wanting to acquire 50,000ft<sup>2</sup> in one country might need to define its space requirement as 60,000ft<sup>2</sup> elsewhere.

**IPMS**, as an international property measurement standard, has been created through a transparent, detailed and inclusive standard setting process by the **SSC**. It supports associated financial reporting and valuation standards such as the International Financial Reporting Standards (IFRS) and, in the USA, the Uniform Standards of Professional Appraisal Practice (USPAP). The International Valuation Standards Council (IVSC) supports **IPMS**, which should be read in conjunction with International Valuation Standards (IVS).

The **SSC** has spent considerable time researching established standards to ensure that existing intelligence has not been wasted. **IPMS** is not a hybrid of those standards but does introduce some concepts that may be new to some markets. These concepts have been agreed by the **SSC** to have a proven track record in the relevant market, although they have been further refined for the purpose of **IPMS**.

**IPMS** is a high level standard. Markets that do not have an existing established measurement standard are encouraged to adopt **IPMS**. The **SSC** did not identify any existing measurement standard that was suitable for adoption internationally. Therefore, in all developed markets, where existing measurement conventions are established, significant adjustment will be required. We expect **IPMS** to work initially in parallel with local standards and for a dual reporting basis and interface to be adopted where appropriate. In time we expect **IPMS** to become the primary basis of measurement across markets.

The **SSC** considered it unrealistic to create a single standard that would be immediately applicable to all classes of **Buildings** because each has distinctive characteristics that require individual analysis. However the **SSC** determined that the principles, methodology and measurement practices developed for **IPMS** will be similar in standards for residential, industrial and retail **Buildings**. These will need to be consistent as another class of **Building**, mixed use, would incorporate several **Building** classes.

In order to resolve confusion with terms that have established definitions we have avoided using existing **Floor Area** descriptions such as Gross External Area (GEA), Gross Internal Area (GIA) and Net Internal/Lettable Area (NIA/NLA). These terms are commonly, but inconsistently, used in markets across the world.

The **SSC** consulted widely to understand the measurement conventions used in different international markets. Our research found there was a need to measure the external area of a **Building**, for planning purposes or the summary costing of development proposals. The **SSC** decided to refer to this as **IPMS 1** and apply it to all classes of **Building**. There was also a requirement to identify and categorise internal areas. This is referred to as **IPMS 2 – Office** and will assist the **Property Industry** to make efficient use of space and benchmarking data. It was also important to measure areas in exclusive occupation for transactions and the **SSC** created **IPMS 3 – Office** for this purpose.

## IPMS Standards Setting Committee

In July 2013 the **IPMSC** selected real estate experts from around the world to form its Standards Setting Committee (**SSC**) and develop global standards for property measurement.

The **SSC** brings together experts including academics, real estate fund and asset managers, valuers, and specialists in development and construction. The **SSC** acts independently from the **Coalition** and its respective members.

The **SSC** members and co-authors of this standard for office **Buildings** are:

Max Crofts FRICS (UK)	Chairman
Allen Crawford FRICS, FAPI (Australia)	Vice Chairman
Alexander Aronsohn FRICS (UK)	Executive Secretary to the Committee
Will Chen MRICS (China)	
Anthony Gebhardt MRICS, RQS (South Africa)	
Prof. Dipl. Ing. Marc Grief, Architect AKH (Germany)	
Kent Gibson BOMA Fellow, CPM (USA)	
Prof. Liu Hongyu (China)	
Luke Mackintosh MRICS, AAPI, F Fin (Australia)	
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V. Suresh FRICS (India)	
Koji Tanaka FRICS, ACI Arb, RIBA, JIA (Japan)	
Prof. Sr Dr. Ting Kien Hwa FRICS, FRISM, MPEPS, MMIPPM (Malaysia)	
Dr. Piyush Tiwari MRICS (India)	

## Part 1 Aim and Scope of the Standards

### 1.1 Definitions

#### Building

An independent structure forming part of a **Property**.

#### Coalition

The Trustees of **IPMS**, comprising not-for-profit organisations, each with a public interest mandate.

#### Component

One of the main elements into which the **Floor Area** of a **Building** can be divided.

#### Component Area

The total **Floor Area** attributed to one of the **Components**.

#### Floor Area

The area of a normally horizontal, permanent, load-bearing structure for each level of a **Building**.

#### Internal Dominant Face

The inside finished surface comprising 50% or more of the surface area for each **Vertical Section** forming an internal perimeter.

#### IPMS

International Property Measurement Standards.

#### IPMSC

The International Property Measurement Standards Coalition.

#### IPMS 1

The sum of the areas of each floor level of a **Building** measured to the outer perimeter of external construction features and reported on a floor-by-floor basis.

#### IPMS 2 – Office

The sum of the areas of each floor level of an office **Building** measured to the **Internal Dominant Face** and reported on a **Component-by-Component** basis for each floor of a **Building**.

#### IPMS 3 – Office

The **Floor Area** available on an exclusive basis to an occupier, but excluding **Standard Facilities**, and calculated on an occupier-by-occupier or floor-by-floor basis for each **Building**.

#### Property

Any real estate asset in the built environment.

#### Property Industry

Comprises **Users**, **Service Providers** and **Third Parties**.

#### Service Provider

Any entity providing real estate advice to a **User** including, but not limited to, **Valuers**, surveyors, facility managers, property managers, asset managers, agents and brokers, **Space Measurement Professionals**, cost consultants, interior designers and architects.

#### Space Measurement Professional

A **Service Provider** qualified by experience or training to measure **Buildings** in accordance with **IPMS**.



### Standard Facilities

Those parts of a **Building** providing shared or common facilities that typically do not change over time, including, for example, stairs, escalators, lifts/elevators and motor rooms, toilets, cleaners' cupboards, plant rooms, fire refuge areas and maintenance rooms.

### Third Party

Any entity other than a **User** or **Service Provider** with an interest in property measurement including, but not limited to, governments, banks, other property financing bodies, data analysts and researchers.

### User

An owner-occupier, developer, investor, purchaser, vendor, landlord or tenant.

### Valuer

A **Service Provider** with an appropriate professional qualification in valuation or appraisal.

### Vertical Section

Each part of a window, wall or external construction feature of an office **Building** where the inside finished surface area varies from the inside finished surface area of the adjoining window, wall or external construction feature, ignoring the existence of any columns.

## 1.2 Aim of the Standards

The aim of **IPMS** is to provide a consistent measurement of **Property**. **IPMS** will meet the requirements of **Users of Property** for consistency in measurement and reporting. Until now the stated area of floor space in identical **Buildings** has varied considerably between countries, and sometimes within the same country, owing to differing measurement conventions. The measurements can be used for valuation, transaction and benchmarking purposes.

This is equally important for **Service Providers** and **Third Parties**, so that data can be used with confidence for property financing, building and facility management, research and other purposes.

## 1.3 Use of the Standards

**IPMS** can be used for any purpose agreed between **Users**, **Service Providers** and **Third Parties**.

In some circumstances **IPMS** can interface between existing measurement standards by providing a common measurement language.

## Part 2 Principles of Measurement

### 2.1 General Principles of Measurement and Calculation

The **SSC** has adopted the following fundamental principles of measurement and calculation, which apply to all **Buildings**:

1. The item must be capable of being measured.
2. The measurement must be objectively verifiable.
3. The measurements and calculations must be clearly documented and the following stated:
  - The **IPMS** standard used, for example, **IPMS 1**, **IPMS 2 – Office** or **IPMS 3 – Office**
  - The method of measurement
  - The unit of measurement
  - The measurement tolerance
  - The date of the measurement.
4. Where an interface is adopted, the reconciliation between **IPMS** and the standard referred to must be detailed.
5. Inevitably there will be situations not directly covered by **IPMS**. In these circumstances the principles of **IPMS** should be extrapolated using a common-sense approach.

### 2.2 Best Measurement Practice

#### 2.2.1 General

The **SSC** recommends that all **IPMS** measurement is supported by CAD (computer-aided design) drawings or BIM (building information modelling) data, but where other drawings are used as a basis for measurement annotated dimensions on drawings should be used in preference to a reliance on scaling alone.

The **Service Provider** must report how the **Floor Area** has been established, for example CAD drawings, other drawings or by laser or tape measurement.

Areas for **IPMS 1** are to be taken from drawings or on site. Measurements for **IPMS 2 – Office** and **IPMS 3 – Office** are to be taken to the **Internal Dominant Face** for external walls or otherwise horizontally at wall-floor junctions, ignoring skirting boards, cable trunking, heating and cooling units, and pipework.

**Buildings** are to be measured individually and reported on a floor-by-floor basis.

#### 2.2.2 Unit of Measurement

Measurements and calculations should be in the unit commonly adopted in the relevant country.

**Users** and **Third Parties** may require measurements to be converted, in which case the conversion factor must be stated.

### 2.2.3 Tolerance

The measurement tolerance is to be specified in the scope of work and report. The **Service Provider** should provide an appropriate degree of tolerance having regard to the nature of the instruction, the equipment available and conditions at the time of measurement.

### 2.2.4 Measurement Reporting

Any **IPMS** area reported to a **User**, where practical, should be cross-referenced to an appropriately coloured drawing and, if required, to a **Component Area** spreadsheet when reporting **IPMS 2 – Office**.

## 2.3 Limited Use Areas

**Service Providers** need to be aware that in certain markets there may be areas in **Buildings** that are incapable of occupation in the light of government regulation or labour legislation. Such areas and their limitations are to be identified, measured and stated separately within **IPMS** reported areas. For example, if areas are subject to a height restriction, the height should be stated in the reporting document and in the sample spreadsheet.

**Users** and **Third Parties** need to be aware that the inclusion of measured areas in **IPMS** does not necessarily mean that the areas are available for legal occupation or use.

The following examples are not exhaustive:

#### Example 1 – Area difference from Internal Dominant Face

There may be a need to show the difference, if any, in **Floor Area** between measurements taken to the **Internal Dominant Face** and measurements taken to the wall-floor junction.

#### Example 2 – Areas with limited height

In various markets, areas with limited height are identified separately and this height can vary between jurisdictions.

#### Example 3 – Areas with limited natural light

In various jurisdictions, areas with limited natural light in a **Building** may need to be identified separately.

#### Example 4 – Above and below ground

A **Building** is generally composed of floors above ground and floors below ground. For measuring purposes, this distinction may be important in determining the conditions under which the premises may be used in compliance with labour legislation, rules on fitness for habitation or taxation.

## 2.4 Interface Adjustment

The SSC is aware that there are many different measurement conventions in use. In some markets **Floor Area** is measured to the wall-floor junction, in others it is taken to the midpoint of walls or the external face. Other markets have adopted varying interpretations of the dominant face of an inside finished surface. Against that background of different measurement practices the SSC has adopted **Internal Dominant Face** to define the extent of **IPMS 2 – Office** and **IPMS 3 – Office**.

**Users** and **Service Providers** wishing to interface with other measurement conventions will need to identify and state the **Floor Area** variation from **IPMS**.

## Part 3 IPMS Standards

The IPMS standards are:

- IPMS 1
- IPMS 2 – Office
- IPMS 3 – Office.

### 3.1 IPMS 1

#### 3.1.1 Use

IPMS 1 is used for measuring the area of a **Building** including external walls. In some markets it can be used by parties for planning purposes or the summary costing of development proposals.

#### 3.1.2 Definition

**IPMS 1:** The sum of the areas of each floor level of a **Building** measured to the outer perimeter of external construction features and reported on a floor-by-floor basis.

The definition of **IPMS 1** is the same for all classes of **Building**.

In many markets, but not universally, this is known as Gross External Area.

##### Inclusions:

The external area of basement levels is calculated by extending the exterior plane of the perimeter walls at ground floor level downwards, or by estimation of the wall thickness if the extent of the basement differs from the footprint of the **Building**.

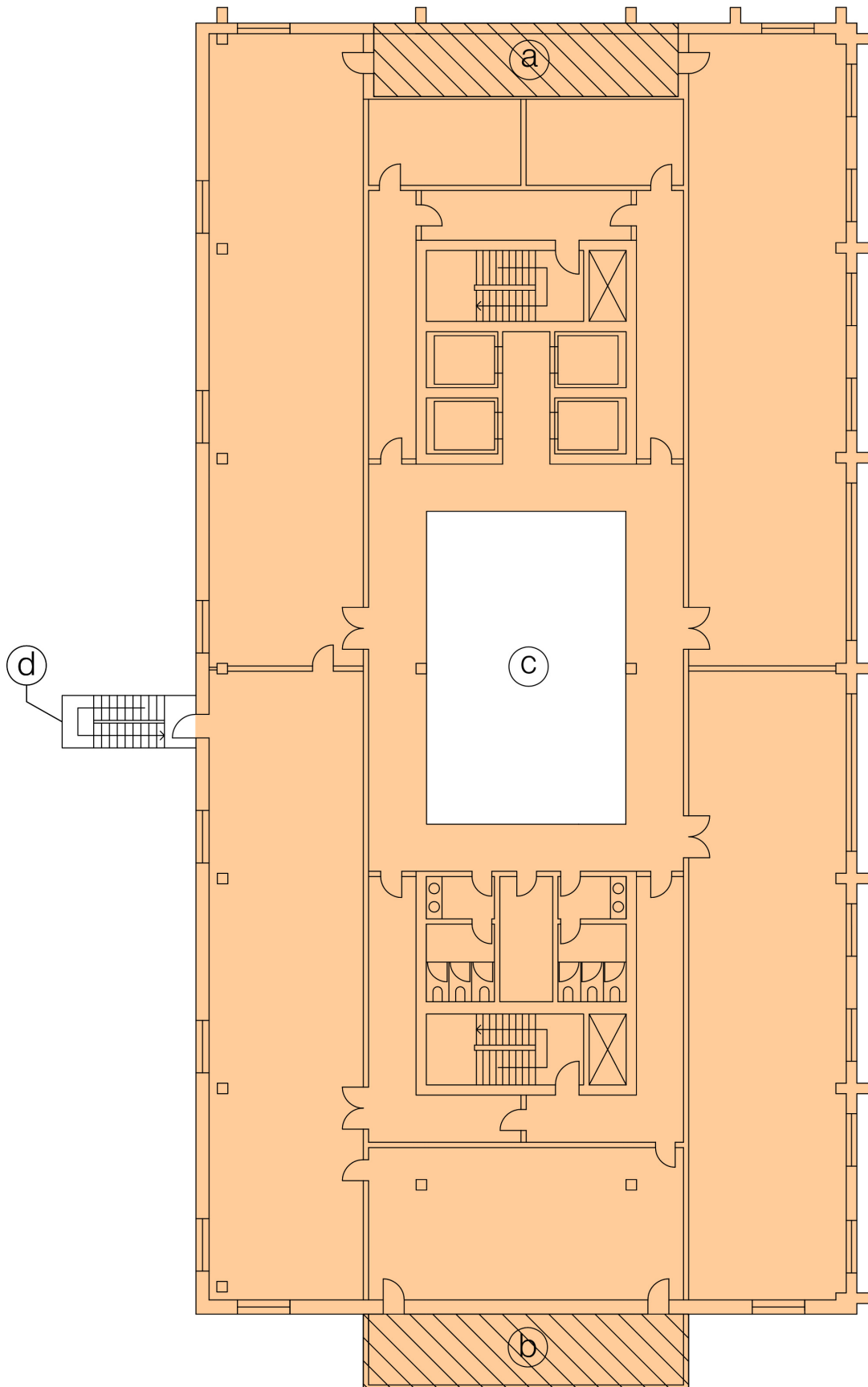
##### Measurements included but stated separately:

Balconies, covered galleries and generally accessible rooftop terraces are included. They are to be measured to their outer face and their areas are to be stated separately.

##### Exclusions:

Measurement for **IPMS 1** is not to include the area of:

- Open light wells or the upper level voids of an atrium
- Open external stairways that are not an integral part of the structure, for example, an open framework fire escape
- Patios and decks at ground level, external car parking, equipment yards, cooling equipment and refuse areas, and other ground level areas that are not fully enclosed are not to be included within **IPMS 1**, but may be measured and stated separately.



**Diagram 1: IPMS 1 – upper floor level**

- |    |                 |    |  |
|----|-----------------|----|--|
| a) | Covered gallery | c) | Open light well/upper level void of atrium                     |
| b) | Balcony         | d) | Open external stairway (not an integral part of the structure) |

Hatched areas are to be stated separately.

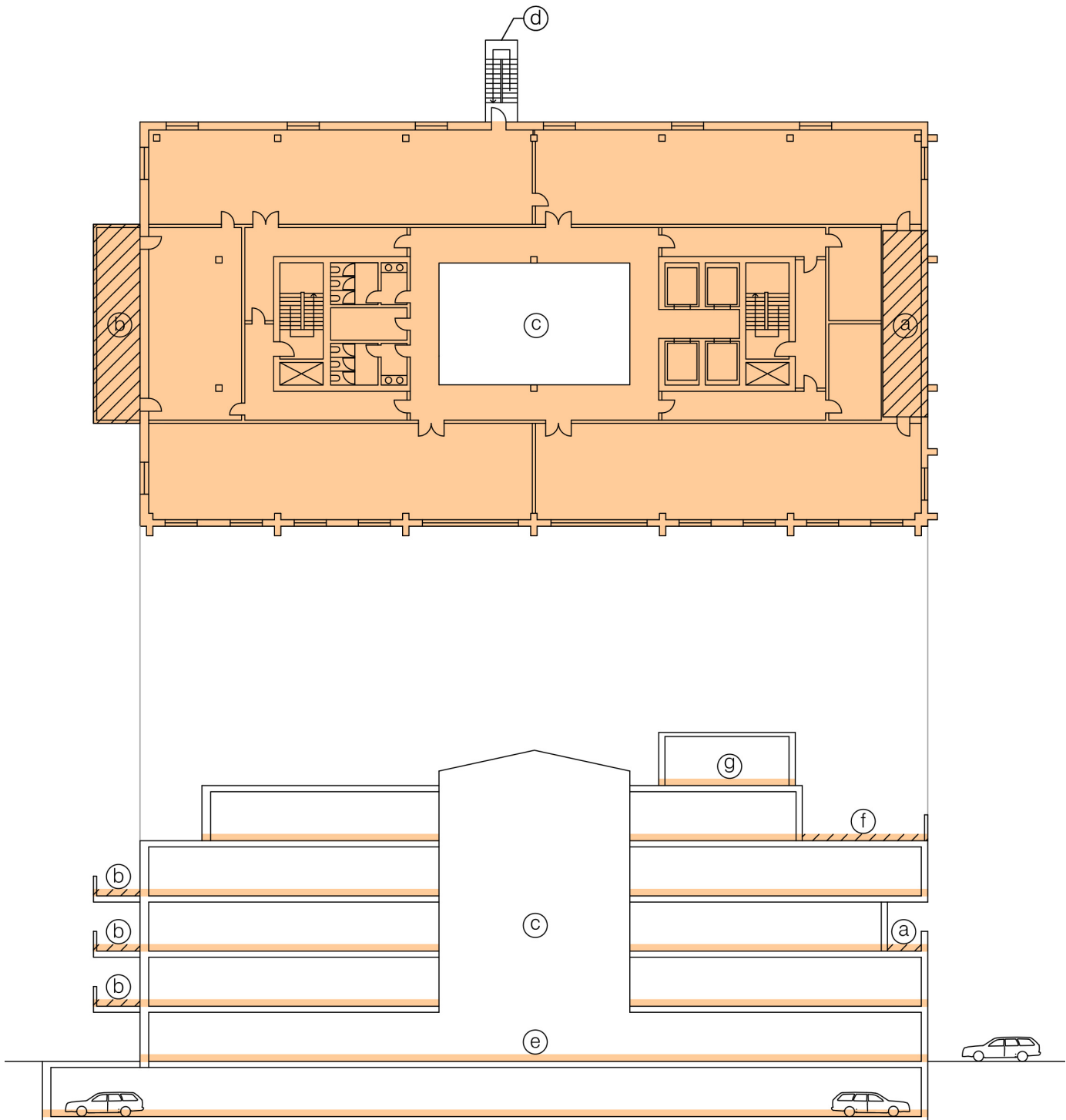


Diagram 2: IPMS 1 – plan and section

- |    |  |    |                          |
|----|--|----|--------------------------|
| a) | Covered gallery  | e) | Atrium ground level      |
| b) | Balcony  | f) | Roof terrace             |
| c) | Open light well/upper level void of atrium                     | g) | Lift/elevator motor room |
| d) | Open external stairway (not an integral part of the structure) |    |                          |

Hatched areas are to be stated separately.

## 3.2 IPMS 2 – Office

### 3.2.1 Use

**IPMS 2 – Office** is for measuring the interior area and categorising the use of space in an office **Building**. It can be used by parties such as asset managers, brokers, cost consultants, facility managers, occupiers, owners, property managers, researchers and **Valuers** to provide data on the efficient use of space and for benchmarking.

The **Component Areas** in **IPMS 2 – Office** enable **Users** and **Service Providers** to make direct floor space comparisons between data from different market practices.

### 3.2.2 Definition

**IPMS 2 – Office:** The sum of the areas of each floor level of an office **Building** measured to the **Internal Dominant Face** (see 3.2.3) and reported on a **Component-by-Component** basis for each floor of a **Building**.

In many markets, but not universally, this is known as Gross Internal Area.

#### Inclusions:

**IPMS 2 – Office** includes all areas, including internal walls, columns and enclosed walkways or passages between separate **Buildings**, available for direct or indirect use. Covered void areas such as atria are only included at their lowest floor level.

#### Measurements included but stated separately:

Balconies, covered galleries and generally accessible rooftop terraces are included. They are to be measured to their inner face and their areas are to be stated separately (see page 19: Component Area H).

#### Exclusions:

Measurement for **IPMS 2 – Office** is not to include the area of:

- Open light wells or the upper level voids of an atrium
- Patios and decks at ground level not forming part of the building structure, external car parking, equipment yards, cooling equipment and refuse areas, and other ground level areas that are not fully enclosed are not to be included within **IPMS 2 – Office**, but may be measured and stated separately.

### 3.2.3 Internal Dominant Face

The **Internal Dominant Face** is the inside finished surface comprising 50% or more of the surface area for each **Vertical Section** forming an internal perimeter.

A **Vertical Section** refers to each part of a window, wall or external construction feature of an office **Building** where the inside finished surface area varies from the inside finished surface area of the adjoining window, wall or external construction feature, ignoring the existence of any columns.



If there is no **Internal Dominant Face**, because no face in a **Vertical Section** exceeds 50%, or if the **Internal Dominant Face** is not vertical, the measurement should be to the wall-floor junction, ignoring skirting boards, cable trunking, heating and cooling units, and pipework.

When determining the **Internal Dominant Face** of a **Vertical Section** the following guidelines should be used:

- skirting boards and decorative elements are not classified as being part of a wall
- the existence of columns is ignored
- window frames and mullions are deemed to form part of the window
- air conditioning units, ducting bulkheads and cornices are ignored.

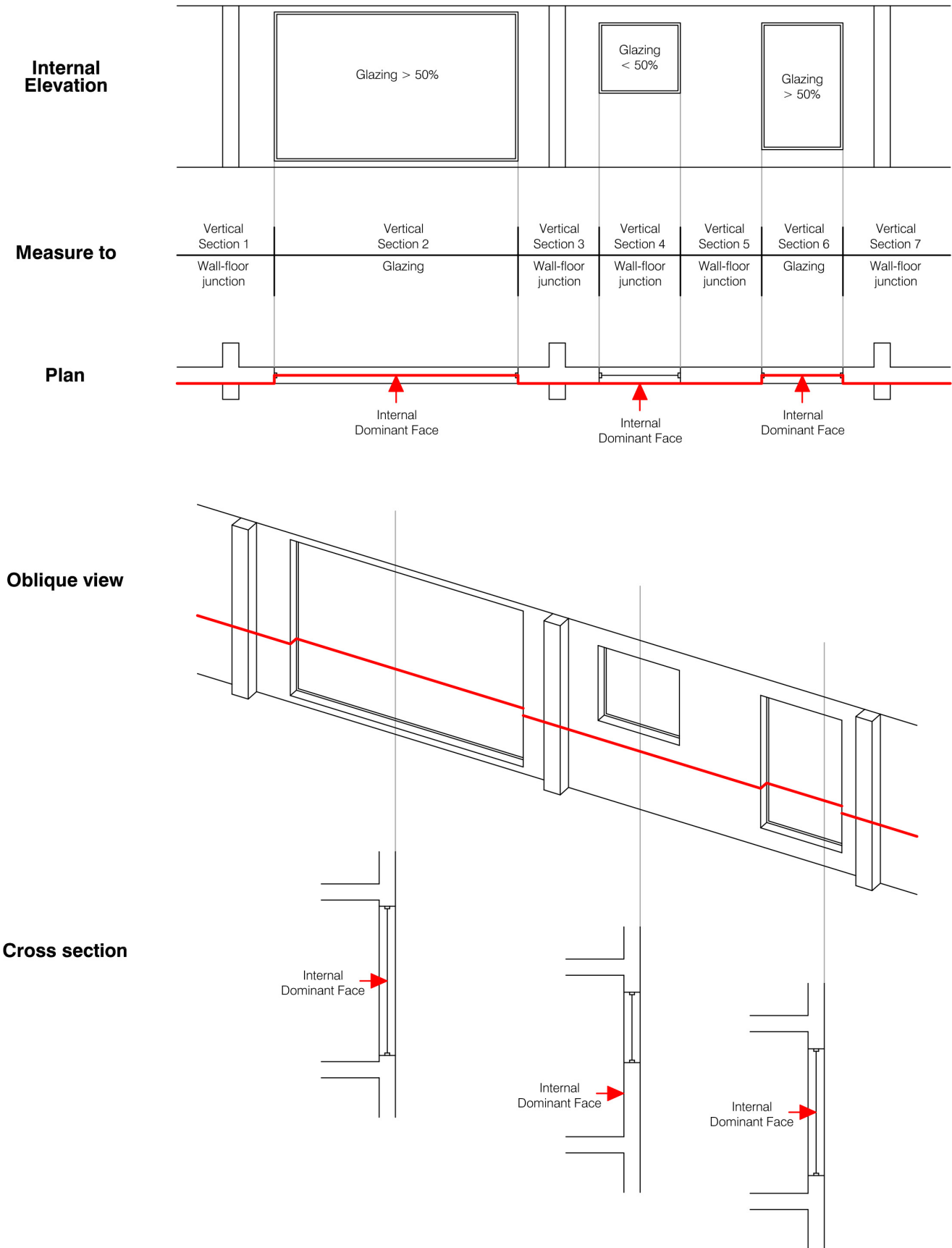


Diagram 3: Internal Dominant Face

**IPMS 2 – Office** comprises the sum of the following eight **Component Areas**.

<b>Component Area A</b>	<b>Vertical Penetrations</b> Examples of vertical penetrations include stairs, lift/elevator shafts and ducts but any penetration of less than 0.25m <sup>2</sup> is to be disregarded.
<b>Component Area B</b>	<b>Structural Elements</b> This comprises all structural walls and columns that are to the inside of the <b>Internal Dominant Face</b> .
<b>Component Area C</b>	<b>Technical Services</b> Examples of technical services include plant rooms, lift/elevator motor rooms and maintenance rooms.
<b>Component Area D</b>	<b>Hygiene Areas</b> Examples of hygiene areas include toilet facilities, cleaners' cupboards, shower rooms and changing rooms.
<b>Component Area E</b>	<b>Circulation Areas</b> This comprises all horizontal circulation areas.
<b>Component Area F</b>	<b>Amenities</b> Examples of amenities include cafeterias, day-care facilities, fitness areas and prayer rooms.
<b>Component Area G</b>	<b>Workspace</b> The area available for use by personnel, furniture and equipment for office purposes.
<b>Component Area H</b>	<b>Other Areas</b> Examples of other areas include balconies, covered galleries, internal car parking and storage rooms.

If a **Component Area** is in multifunctional use, it is to be stated according to its principal use. Portions of the **Component Areas** may be classified as private, being reserved exclusively for one occupier, or shared, being available for the use of several occupiers.

Floor levels are to be recorded in accordance with local market practice, with the main entrance stated and other floor levels scheduled accordingly.

Areas within **Component Area H** not available for direct office-related use may be described as ancillary. They are to be measured, but may also be stated in an alternative way. For example, basement car parking may also be reported by the number of spaces.

#### Limited Use Areas

Limited use areas as defined in Section 2.3 are included in the overall **IPMS 2 – Office** total area, but must also be identified, measured and stated separately within **IPMS** reported areas.

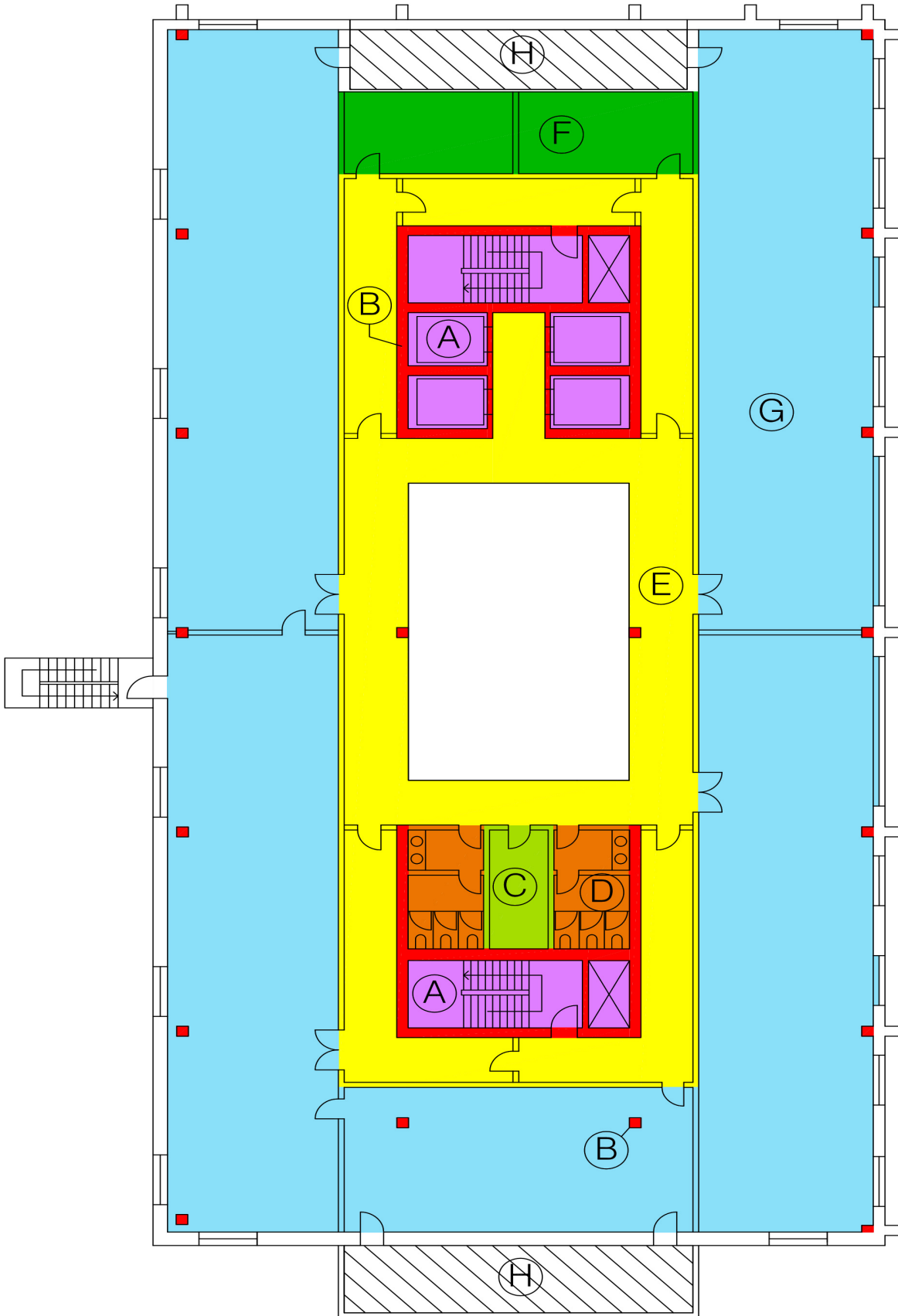


Diagram 4: IPMS 2 – Office – Component Areas

## Sample spreadsheet for IPMS 2 – Office

Floor	-2	-1	0	1	2	3	4	Total
<b>Component Area A - Vertical Penetrations</b>								
Example – stairs, lift/elevator shafts and ducts	0	0	0	0	0	0	0	0
<b>Component Area B - Structural Elements</b>								
Example – structural walls, columns	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
IPMS total	0	0	0	0	0	0	0	0
<b>Component Area C - Technical Services</b>								
Example – plant rooms, lift/elevator motor rooms and maintenance rooms	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
IPMS total	0	0	0	0	0	0	0	0
<b>Component Area D - Hygiene Areas</b>								
Example – toilet facilities, cleaners' cupboards, shower rooms and changing rooms	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
IPMS total	0	0	0	0	0	0	0	0
<b>Component Area E - Circulation Areas</b>								
Example – all horizontal circulation areas	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
IPMS total	0	0	0	0	0	0	0	0
<b>Component Area F - Amenities</b>								
Example – cafeterias, day-care facilities, fitness areas and prayer rooms	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
IPMS total	0	0	0	0	0	0	0	0

## Sample spreadsheet for IPMS 2 – Office *continued*

Floor	-2	-1	0	1	2	3	4	Total
<b>Component Area G - Workspace</b>								
Workspace	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
IPMS total	0	0	0	0	0	0	0	0
<b>Component Area H - Other Areas</b>								
Example – balconies, covered galleries, internal car parking and storage rooms **	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
IPMS total	0	0	0	0	0	0	0	0

<b>TOTAL IPMS 2 – Office</b>								
Aggregate non-limited use Component Areas	0	0	0	0	0	0	0	0
* Limited use areas	0	0	0	0	0	0	0	0
<b>Total IPMS 2 – Office</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>Additional areas outside IPMS 2 – Office</b>	
External car parking	0
Decks, patios not forming part of the building structure	0
Any other areas (Example – equipment yards, cooling equipment, refuse areas)	0

\* Each limitation, if any, is to be stated separately

\*\* The extent of each use within Component Area H is to be stated separately

## 3.3 IPMS 3 – Office

### 3.3.1 Use

**IPMS 3 – Office** is for measuring the occupation of **Floor Areas** in exclusive use. It can be used by parties such as agents and occupiers, asset managers, facility managers, property managers, researchers and **Valuers**.

**IPMS 3 – Office** is not directly related to **IPMS 1** or **IPMS 2 – Office**, neither is it a **Component Area** within **IPMS 2 – Office**. Within an office **Building** there could be a single **IPMS 3 – Office** area for the entire **Building** or there could be numerous separate **IPMS 3 – Office** areas.

### 3.3.2 Definition

**IPMS 3 – Office:** The **Floor Area** available on an exclusive basis to an occupier, but excluding **Standard Facilities** and shared circulation areas, and calculated on an occupier-by-occupier or floor-by-floor basis for each **Building**.

**Standard Facilities** are those parts of a **Building** providing shared or common facilities that typically do not change over time, including, for example, stairs, escalators, lifts/elevators and motor rooms, toilets, cleaners' cupboards, plant rooms, fire refuge areas and maintenance rooms.

#### Inclusions:

All internal walls and columns within an occupant's exclusive area are included within **IPMS 3 – Office**. The **Floor Area** is taken to the **Internal Dominant Face** and, where there is a common wall with an adjacent tenant, to the centre-line of the common wall.

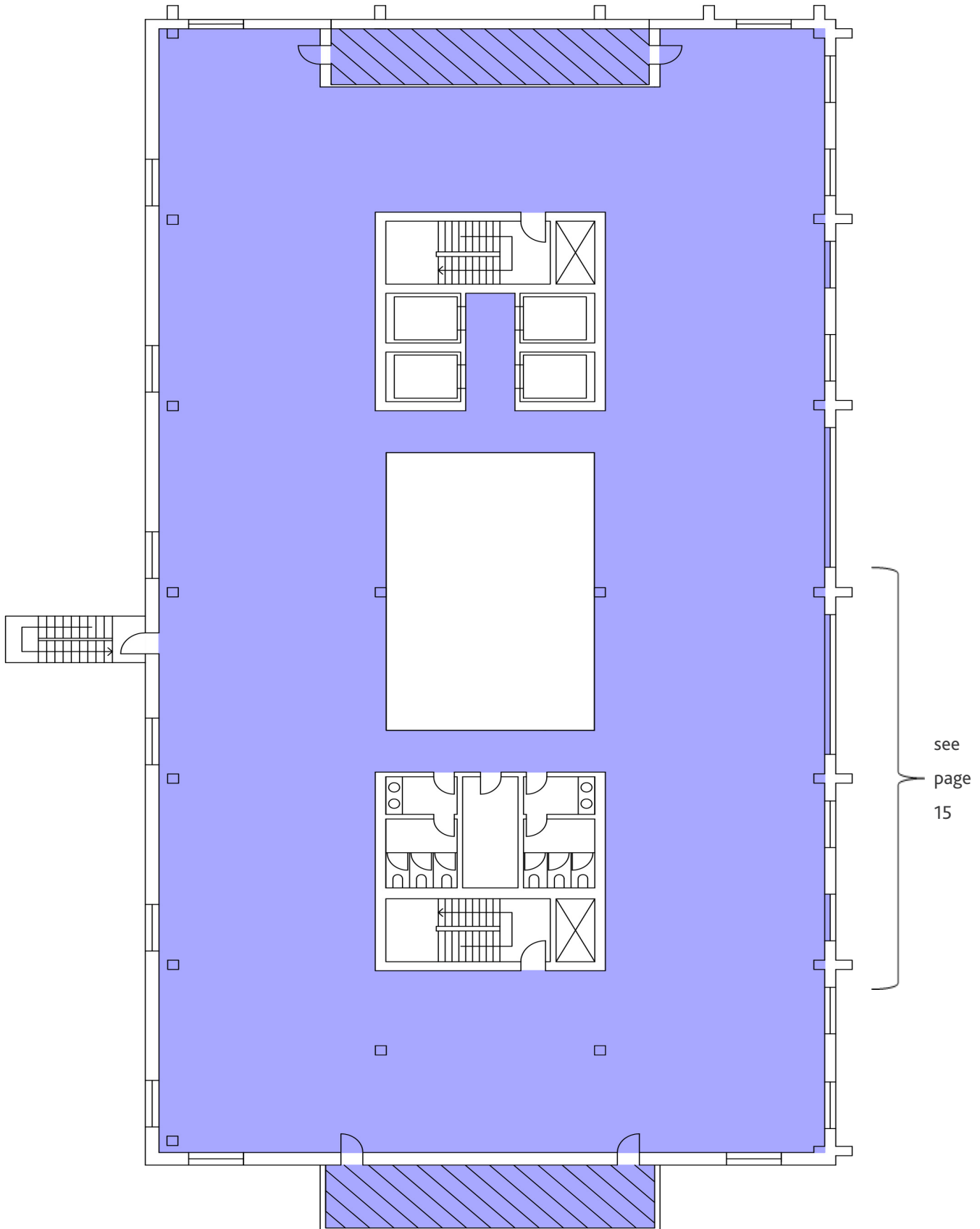
#### Measurements included but stated separately:

Balconies, covered galleries, and rooftop terraces in exclusive use are to be measured to their inner face and their areas stated separately.

#### Exclusions:

**Standard Facilities**, as defined above.

**Standard Facilities** may vary from floor to floor and will also vary according to how the **Building** is occupied. In the case of a **Building** in single occupation it has to be assumed, hypothetically, that the **Building** is in multiple occupation, floor by floor, in order to determine the extent of the **Standard Facilities**. If a floor has two or more occupiers, each is to be measured separately and any shared circulation areas are also excluded.



**Diagram 5: IPMS 3 – Office – upper floor, single occupancy**

Hatched areas are to be stated separately.



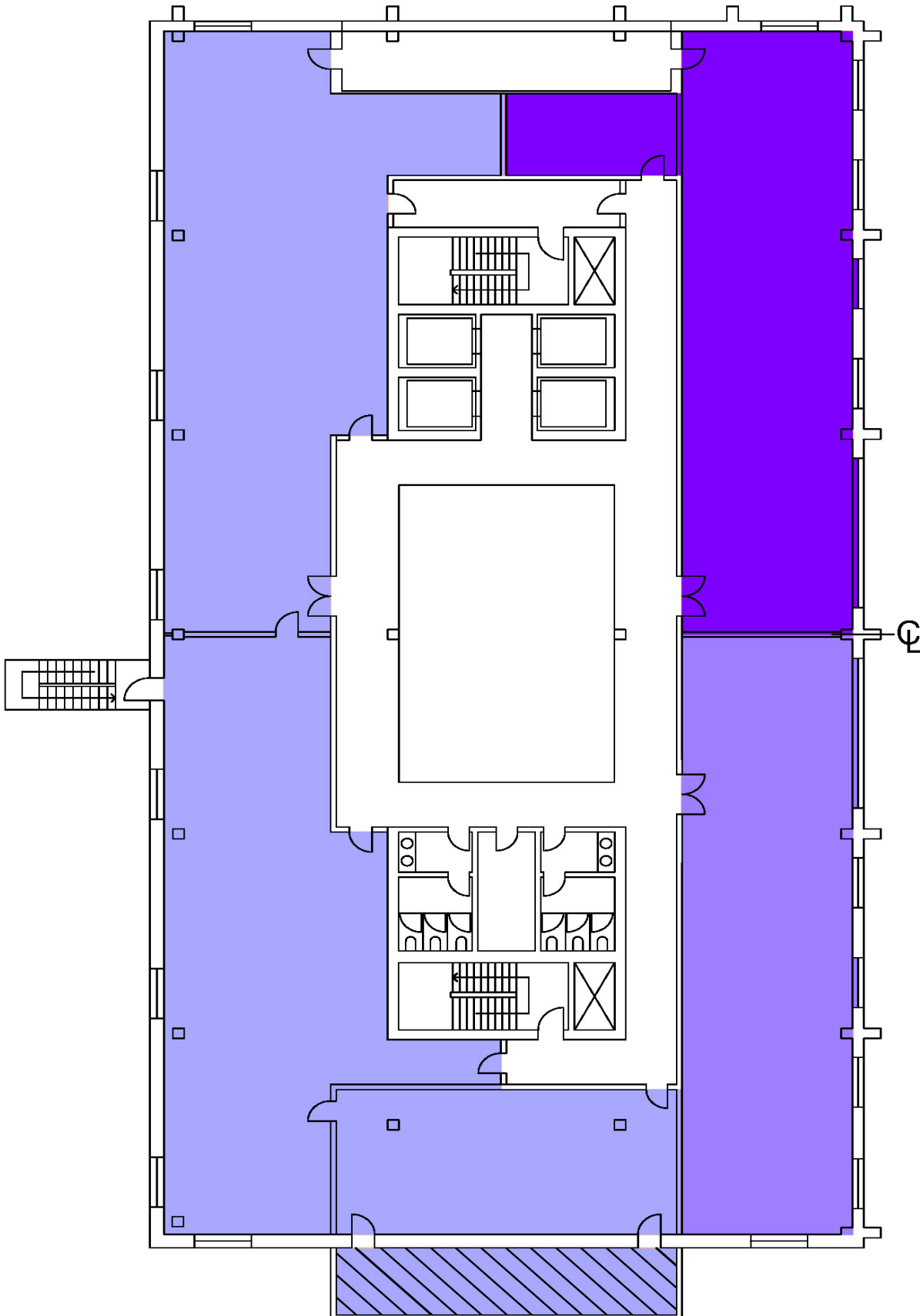


Diagram 6: IPMS 3 – Office – upper floor, multiple occupancy

Hatched areas are to be stated separately.

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