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# **EUROPEAN COMMISSION**

OFFICE FOR INFRASTRUCTURE AND LOGISTICS IN BRUSSELS

# II.2. SPECIFICATIONS FOR SPECIAL-PURPOSE ZONES

for the Manual of Standard Building Specifications

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## II.2. SPECIFICATIONS FOR SPECIAL-PURPOSE ZONES

#### II.2.1. SPECIALISED ROOMS

# 1. COMPUTER ROOM (LSU)

#### 1.1. Architecture and construction

# Protection against malicious acts

# Location of the room

The site must be chosen on the basis of a prior internal agreement between the services that will be using it and the Commission's technical services.

- The room must not be located behind a street-level window looking directly onto the street, unless this is unavoidable for technical reasons.
- It must only be possible to identify the room using the customary addressing system.

#### Structural elements

- The internal and external walls must extend from the structural floor to the structural ceiling.
- The internal and external walls must be resistant to intrusion (solid concrete block of at least 14 cm or an equivalent solution to be approved by the Security Directorate).
- There must be no external windows, unless this is unavoidable for physical reasons.

#### Access control

The access control system must comply with the specifications of the Commission's Security Directorate (see Section I.2.9. Protection against malicious acts).

#### Fire safety

The room itself (including the cable feed-throughs and ducts) must be a fire-resistant compartment in accordance with the requirements concerning plant rooms set out in the Royal Decree laying down Basic Fire and Explosion Prevention Standards applicable to new buildings.

The fire-resistant properties of the coverings of vertical partitions, ceilings, flooring or raised flooring must correspond to those of plant rooms in accordance with the Royal Decree laying down Basic Fire and Explosion Prevention Standards applicable to new buildings.

#### Maintenance and management

The room must not be close to a potential source of flooding, strong vibrations, magnetic fields or strong radio-frequency emissions.

Where applicable, raised flooring must be installed with a view to accommodating technical installations; it must incorporate protection against electrical shocks (anti-static) and be adequately resistant to mechanical damage and abrasion.

Solutions that do not involve raised flooring must be investigated (in cases where it is feasible that a rack-mounted air-conditioning unit without an air distribution system might be used).

Cabling layouts must comply with the relevant standards and the state of the art (see Section I.2.2. Telecommunications).

#### Acoustic comfort

The noise level within the rooms adjacent to the LSU must not exceed the limit values stipulated in Section I.1.4. Occupational well-being, paragraph 3. Acoustic comfort.



# Specific technical specifications

# Layout:

# Doors:

Doors must have a width of at least 1.00 m and a height of at least 2.10 m, with a single leaf, opening to the exterior and fitted with door closers on the interior.

They must be unlocked automatically in the event of gas ejection or if a detector in the room issues an automatic alert, but must be kept closed mechanically by means of a latch.

#### Raised flooring:

- Available height depending on requirements and physical constraints<sup>1</sup>.
- Mechanical resistance class 6A in accordance with standard NBN EN 12825 (useful load of 6 kN).
- Protection against electric shocks (electrical leakage resistance above  $5x10^4\,\Omega$  in accordance with VDE 0100/T.610 or equivalent), dissipative in nature (maximum electrical leakage resistance below  $10^9\,\Omega$  in accordance with standards EN 14041, EN 1081, ISO 10965 or equivalent), with equipotential bonding connected to the computer earth.
- The tiles must measure 60 x 60 cm.
- Raised flooring system with ventilated floor tiles if necessary.
- The raised flooring must be earthed; in order for this to be done, at least one quarter of the metal floor supports and all the other metal parts under the raised flooring (such as cable supports, inert-gas pipes etc.) must be connected to the computer earth.
- The raised flooring must be installed on a surface that does not attract dust (antistatic). Meticulous efforts must be made to remove all dust from the area below the raised flooring.

## 1.2. Remote management

The points to be connected to the centralised technical management system (GTC) are stipulated in Section I.2.1. Remote management, paragraph 2.4. Functionality.

## 1.3. Access control installations

#### **Protection against malicious acts**

The room must be equipped with access control and remote surveillance systems in line with the requirements of the Commission's Security Directorate (see Section I.3.3. Sensitive rooms).

<sup>&</sup>lt;sup>1</sup> Standard NBN EN 50600-2-1 recommends a minimum available height of 500 mm for data centres.

# 1.4. Heating, ventilation, air conditioning (HVAC)

# 1.4.1. Treatment type

Air conditioning is required on a round-the-clock basis in the network of specialised rooms (LSU, main distribution frame room LTG, cabling concentration room LR); this air-conditioning system must be separate from the HVAC installations in the building.

The systems installed must allow humidity levels to be regulated in rooms (humidification and dehumidification).

The air-conditioning installations must incorporate a 'free-cooling' heat dissipation system when thermal output exceeds 20 kW.

Alternative solutions involving refrigerated racks or directly cooled IT equipment must be investigated on a case-by-case basis.

# **1.4.2.** Hygrothermal conditions

Calculation conditions on the basis of the ASHRAE 2011 recommendations:

- Maximum setpoint temperature<sup>2</sup> for cooling:  $25 \pm 1$  °C.
- Relative humidity: 30-60%.

These conditions must be reviewed on the basis of DG DIGIT's requirements in the case of specific or very old equipment.

The installation's power rating must be equivalent to the maximum heat emitted by the machines, and be determined in consultation with DG DIGIT; the minimum power rating is  $400 \text{ W/m}^2$ .

#### 1.4.3. Ventilation

Minimum air flow rate:

- Fresh air supply: 1.5 renewals/hour.
- Air extraction: 1.2 renewals/hour.

The design of the feed-throughs for air ducts must incorporate fire dampers (designed to support fire overpressure in the event that an extinguishing agent is discharged) in order to ensure that the room remains a fire compartment.

#### 1.4.4. Redundancy

Air-conditioning installations must comply with one of the following redundancy scenarios in order to guarantee continuity of operation in the event of malfunctions and during maintenance operations:

- (a) a cold-water air-conditioning system which functions independently of the building's installations, with the following duplicate equipment:
  - o cold water production: the following must be installed:
    - (1) an additional emergency supply from the building's cold water production system,
    - (2) or an additional stand-alone source of cold water.
  - o cold water distribution: the water circuit must incorporate two pumps connected in parallel,

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<sup>&</sup>lt;sup>2</sup> Temperature of the air entering the computer equipment.

- o terminal units: two redundant cabinets must be connected in parallel in the room. Each cabinet must supply 100% of the maximum power required.
- (b) two redundant stand-alone air-conditioning systems which operate independently of the building's installations.

All the HVAC installations in the specialised rooms must be supplied with power from a standalone power source, e.g. an emergency unit or (if not available) an alternative stand-alone power source (see Section I.2.4. Electricity and lighting) which differs from the UPS provided specifically for the LSU.

# 1.4.5. Regulation

The air-conditioning installation must restart automatically after a momentary power cut.

If the fire alarm is activated:

- the fire dampers must close;
- the air-conditioning and ventilation systems in the computer room must cease operation.



# **Specific technical specifications**

## Air-conditioning cabinet:

The general alarm signal must be reported to the centralised technical management system (GTC) and must be visible on the front of the cabinet.

An auxiliary switch must enable the central fire detection system to turn off the airconditioning cabinet.

The air-conditioning cabinet must have an anti-vibration base.

## Water distribution circuits:

No pipework may be placed above racks. Feed-throughs of pressurised pipes will only be permitted in raised flooring. A flood risk assessment must be carried out in order to ascertain whether it is necessary to install a water detection system under the raised flooring.

# 1.5. Electricity and lighting

# 1.5.1. Normal lighting

## Visual comfort

Normal lighting must guarantee an average horizontal lighting level (Em) of 500 lux measured at 0.85 m from the floor (see Section I.2.4. Electricity and lighting),

# Control and regulation of lighting installations

The lighting system must incorporate manual switches (non-timed) at the entrances to rooms.

# 1.5.2. Emergency lighting

Emergency lighting must be provided in rooms in accordance with the applicable legislation (see Section I.2.4. Electricity and lighting).

# 1.5.3. Emergency lighting

All normal lighting systems must be supplied with power from a stand-alone power source in order to allow tasks to be closed in the event of a power cut; the power source may be e.g. an emergency unit or (in the absence of the latter) an alternative stand-alone source (see Section I.2.4. Electricity and lighting).

## 1.5.4. Electrical installations

## **Operating safety**

On the basis of the relevant risk assessments, the IT equipment in the room must be supplied with power by two redundant circuits:

- normal power supply or stand-alone power source that forms part of the building's general electrical installations (e.g. an emergency unit) if available in accordance with the relevant legislation and the Commission's requirements (see Section I.2.4. Electricity and lighting),
- supply of power from a stand-alone power source (UPS) designed to be used solely by computer equipment in LSU rooms (see paragraph 5. Uninterrupted static power supply UPS).

## Earthing:

A separate equipotential earth circuit must be installed for computer equipment.

The computer racks and connection circuit boards must be connected to the computer earth.



# **Specific technical specifications**

The sockets and cables must be indelibly marked (at each end of the cable); as a minimum, the mark must state the number of the corresponding circuit.

The design must incorporate a supply of power to the racks (normal power and UPS) with two rails of eight sockets (230 V) and no switch, installed in accordance with the Commission's requirements.

# 1.6. Fire detection and automatic extinguishing installations

## Fire safety

A stand-alone installation for the detection and extinguishing of inert gases (with automatic and manual triggering) must be provided for the computer room, connected to the building's control centre.

The extinguishing installation must comply with standards EN 12094-1 Fixed firefighting systems, EN 15004 (ISO 14520) Gaseous fire-extinguishing systems and with the Commission's requirements.

The fire detection system must comply with the applicable legislation and rules (in particular standards NBN S 21-100-1 and NBN S 21-100-2 Fire detection and alarm systems and with the Commission's requirements (see Section I.2.7. Fire protection, paragraph 2. Fire detection, alerts and alarms). Where applicable, it must cover the three different zones in the computer room (the raised flooring, the room air and the suspended ceiling).



#### **Specific technical specifications**

Operating principle of the fire detection system

The operating principle is described in the flow chart below.

# OPERATIONAL FLOW CHART OF THE FIRE PROTECTION SYSTEM FOR A COMPUTER ROOM ADAPTED TO STANDARD EN 12094-19 LEVEL\*1-ALERT LEVEL 2 ALERT AUTOMATIC CLOSURE OF FIRE DAMPERS¶ ALARMS SET TO SLOW, INTERMITTENT SIGNAL ¶ MANUAL CLOSURE OF FIRE-DAMPERS --ACTIVATION OF A SIGNAL LAMP ALARMS-SET-TO-SLOW, INTERMITTENT SIGNAL-STOP-BUTTON-CAN-BE-PRESSED-TO-STOP-ALARM¶ CTIVATION OF SIGNAL LAMP ACTIVATION OF A SIGNAL LAMP AIR CONDITIONING TO ROOM SWITCHED OFF NO¶ YES¶ VEL\*2 ALERT: FIRST DETECTOR IN SECOND YES¶ NB:-CLOSURE-OF-COMPUTER-ROOM-FIRE-DAMPERS-ONLY.\* END NO¶

The system must incorporate the following relay contacts for commands: alert level one, alert level two, gas ejection, general malfunction, automatic/manual override, isolation of fire dampers, shut-down of ventilation and air-conditioning systems, unlocking of doors.

## Control centre:

The following information must be relayed to the building's control centre:

- first alert
- double detection
- override of the extinguishing function (automatic/manual position)
- gas ejection
- control centre malfunction.

The control centre must be housed in a metal cabinet (IP44). All visual signals and the various buttons must be visible, and it must be possible to operate them without having to open the cabinet.

# Network wiring:

The fire detection system (raised flooring, room air and suspended ceiling) must be executed using two separate networks of detectors.

Loop wiring must be used for the detection elements, push buttons and reports from the control centre to the other systems.

# Detectors:

See Section I.2.7 Fire protection, paragraph 2. Fire detection, alerts and alarms.

Only ionic detectors without a source of radioactivity, optical smoke detectors, multisensor detectors or detectors which use laser technology may be installed.

Push buttons for manual control of the extinguishing function:

A time-delayed manual electric control must be provided for each entrance door (break-glass push button).

A non-time-dependent mechanical emergency control that can be used to control the bank of extinguishers directly must be provided:

- outside each entrance door if the extinguishers are located inside the room,
- directly on the pilot extinguisher in the event that the bank of extinguishers is located outside the room.

Each of these options must be executed using a break-glass push button fitted with a protective cover and a system that integrates a seal.

It must be possible to test the push buttons without breaking the glass by means of a special tool.

# Sirens and flashing lights (visual signals in the room):

See Section I.2.7 Fire protection, paragraph 2. Fire detection, alerts and alarms.

## Signage:

A 'No entry' sign must be displayed at each entrance door as a warning if gas has been ejected. Lights must be switched on in the event that the extinguishers are triggered.

Each entrance door must display the pictogram for 'automatic extinguishing installation' with a reference to the name of the inert gas, in accordance with standard ISO 3864.

#### Gaseous extinguishing media:

Only extinguishing agents based on inert gases which comply with the applicable regulations regarding the protection of humans and the environment may be used.

Products with an ozone destruction potential (ODP) > 0 may not be used.

Extinguishing gases with a global warming potential (GWP) > 0.5 may not be used.

#### Gas cylinders:

The extinguishing gas must be stored in cylinders which comply with the applicable legislation.

Each cylinder must be fitted with:

- a pressure gauge, with contact, to indicate any loss of pressure;
- valves for the following:
  - a lever for manual mechanical control;
  - an electric control (on the master cylinder);
  - a pneumatic control.

It must be possible to remove the pressure gauge and the control devices from the cylinders without losing extinguishing gas. Cylinders must be connected to the network using hoses that allow cylinders to be removed without affecting the network of ejectors.

Pilot cylinder: the system for triggering actuation must be electromagnetic rather than pyrotechnic.

The pipework must be hydraulically tested. The pipework must be earthed.

#### Pressure relief valves:

Correctly sized pressure relief valves must be installed; they must open into a volume equivalent to at least 1.5 times the actual volume protected (preferably into the open air). They must undergo a fan door test to be arranged by the tenderer.

#### II.2.2. EARLY YEARS CENTRES

# 1. CRÈCHES

#### 1.1. Location

The crèche must be located:

- in the vicinity of European Commission buildings, and
- possibly also close to a European School.

In any event the crèche must be located near to public transport amenities and/or an overflow car park.

Its location should take into account the circulation of local traffic.

Atmospheric pollution conditions must be taken into account when deciding on the location of crèches.

## 1.2. Layout and organisation

## 1.2.1. Organisation

The number of groups in the crèche/nursery school will depend on need and will be established in advance in accordance with the requirements imposed by the Belgian bodies responsible for the supervision of childcare centres.



## **Specific technical specifications**

# Organisation:

The information given here refers to a crèche accommodating 360 children, which constitutes an optimal capacity within the operational limits. For a crèche with a smaller capacity, the dimensions or capacities of certain areas or spaces (e.g. car parks, store rooms, etc.) must be calculated pro rata based on the given capacity.

In any event, there must be a ratio of six crèche groups (accommodating 12 children aged between 0 and 3 years) to one nursery-school group (accommodating 18 children aged between 3 and 4 years).

For reference purposes, the Commission's current crèches provide a gross surface area of  $\pm 30 \text{ m}^2$  per child (including areas used for administrative and medical purposes).

The crèche must be equipped with secure outdoor play areas such as gardens, terraces and covered courtyards.

# Access and parking:

Access for deliveries, pedestrians, bicycles and private cars must be planned so as to prevent any risk of collisions or accidents between pedestrians and vehicles. The parking and/or unloading area for delivery vans must not be accessible to children or adult visitors.

An area for parking bicycles must be provided. Facilities for cyclists should conform to the description given in Section I.3.1. Rooms for a specific purpose, paragraph 8 Car parks.

The premises of the crèche should provide a sufficient number of parking spaces for vehicles bringing children into school and collecting them during peak hours, and for staff. Drop-off parking spaces should preferably exceed the standard width to facilitate access for children getting into and out of cars.

A parking space for coaches which conforms to safety requirements must be provided close to the entrance of the premises (for transporting children on outings or trips).

The crèche must offer easy access for a diverse range of goods deliveries, including those being made to the kitchen area (see Section I.3.4. Catering).

## Rooms:

In the case of a multi-storey building, rooms must be sited with a view to facilitating the evacuation of children in an emergency.

- Medical facilities must be situated on the ground floor close to the entrance.
- Administrative offices should preferably be located on the upper floors.
- Other offices should preferably be located on the upper floors.

#### Rooms accommodating children:

Children must be accommodated in independent units. Each crèche unit must have provision for 12 children aged between 0 and 3 years. Each nursery-school group must have provision for 18 children aged between 3 and 4 years.

For the benchmark capacity of 360 children, 24 rooms of 12 children in the crèche and 4 rooms of 18 children in the nursery school must be provided.

Rooms intended for children aged between 0 and 3 years must be of similar design (in terms of surface area, activity/dining areas, separate dormitories, bathrooms and balconies), so that they can be used for all the groups in that age.

Rooms for the nursery school must be larger.

As the children have to be monitored at all times, care must be taken to create a visual and organisational link across the space.

Each activity/dining room must open up onto an outside area so that rooms can be extended directly outdoors.

All rooms must be ventilated, heated and well-lit, and must receive daylight. They must be easy to clean.

## **Units:**

Each unit must be designed as an independent area and must incorporate at least the following facilities:

## Activity/dining room:

The minimum surface area must be at least 4 m<sup>2</sup> per child for each crèche group and 6 m<sup>2</sup> for each nursery-school group, in accordance with the requirements imposed by the Belgian Birth and Early Childhood Agency [Office de la Naissance et de l'Enfance, ONE].

Each activity/dining room should preferably have cold running water facilities with a washbasin at a height suitable for children and adults if the kitchen is not integrated into the activity room, preferably with touch-free controls.

# *Rest room/dormitory:*

#### The rest room must be:

- separate from the activity and dining areas;
- equipped with window blinds for darkening the room;
- large enough to provide at least 2 m<sup>2</sup> per child, in accordance with the requirements imposed by ONE;
- well-ventilated;
- directly accessible from the activity/dining room;
- in the activity room, the doors towards the bathroom and preferably towards the dormitories must feature separating barriers.

It must be able to accommodate 12 beds measuring  $125 \times 70 \text{ cm}$  (or 18 in nursery-school accommodation) or 12 stretcher-beds measuring  $130 \times 54 \text{ cm}$  (or 18 in nursery-school accommodation). The beds and stretcher-beds must be placed 50 cm apart to allow the teacher to move around the room.

There must also be enough space in each dormitory for three evacuation beds (125 x 70 cm) in crèche accommodation and one evacuation bed in nursery-school accommodation.

#### Bathroom: toilets and washbasins/changing area

The bathroom must be adjacent to the activity/dining room. Staff must be able to see this room from the bathroom through a glass partition at a height of around 1.20 m.

The bathroom must contain two bathing/changing areas and a small bath (supplied with hot and cold water, with a tap and shower head).

The bathing/changing areas must be private but allow the adult to remain visible and within earshot of the other children. A suitably effective ventilation system must be installed.

The bathroom/changing room must be equipped with:

- a small bath for children aged between 0 and 3 years, with internal dimensions of  $\pm 70 \times 35$  cm,
- two changing tables (in crèche accommodation only) 90 cm wide and 80 cm deep, depending on the dimensions of the changing mat, surrounded by a railing ±60 cm high. In addition, there must be enough space in the bathroom for a mobile changing table (also surrounded by a railing) measuring ±75 x 50 cm and 60 cm high, with two small, non-slip, foldaway stepladders so that a child can climb up onto the table (upper or lower part), with enough space around the table for the nursery nurse to face the child;
- a sufficiently large changing area for the children with space for 12 lockers (18 in the nursery-school) measuring width x height 40 x 40 cm, at an appropriate height for children,
- two small toilets, separated by a low partition wall,
- two small handwashing basins, at an appropriate height for children, preferably with touch-free controls,
- the nursery-school does not need to be equipped with fixed changing tables, but space must be provided for a mobile changing table.

#### Adult toilets:

Staff working in any unit must have close access to an adult toilet with a washbasin. Each of these toilets should have enough space for the member of staff to get changed and for lockers.

#### Entrance hall:

Each entrance hall must give access to two units.

The entrance halls must be designed to accommodate rigid baby-carriers (infant car seats) or backpack-style baby-carriers, potentially stored in several rows of lockers. There must also be space for a table for helping children to remove outdoor clothing and a coat rack. This area may be used as a reception room for greeting parents. There must be a line of vision between this room and the activity/dining room.

The activity/dining room and corridor must be directly adjacent to the entrance hall.

## Kitchenette:

The kitchenette must be furnished with a refrigerator incorporating a freezer compartment (optional) and a digital temperature indicator, a sink with hot and cold water, a cupboard and a microwave oven.

The kitchenette must be located within the activity/dining room. This area must not be included in the area set out above for children's activity/dining rooms.

## Balcony:

The balcony must be accessible directly from the activity/dining room, and the direction of the sun must be taken into account in its location. Solar protection must be installed if necessary. The size of the balcony must be at least 15 m². See Section 1.4. Layout. Two adjacent terraces should preferably be separated by a gate. This gate must be high enough to prevent children from moving between the balconies and only supervisory staff may be permitted to open it. Balconies must be designed to have a non-slip, easy-to-clean floor surface.

Balconies must have a flat floor surface for sand and water play, and must be designed in such a way that objects cannot fall down to a lower balcony.

Wood must not be used in the construction of balconies.

## Playrooms for use by all children:

The crèche must have playrooms that are adequate for its size; a physical education room (60 m<sup>2</sup>), workshops, libraries etc.

Playrooms must have running water and a washbasin at a suitable height for children. Flooring close to the washbasin must be non-slip.

A sufficient number of children's toilets must be located close to the playrooms.

# Garden(s)/courtyard(s):

It must be possible to separate the garden into two areas so that younger children can play outside at the same time as older children.

Plants with thorns, berries or poisonous leaves are prohibited.

A covered area must be provided under which bicycles and other outdoor toys can be stored.

There must be a sufficient number of children's toilets located close to the garden/courtyard.

Separating barriers must be installed for the access doors to the garden, with a closing/opening system that is not accessible to children (e.g. at a minimum height of 1.50 m).

# Covered courtyard(s):

The covered courtyard must be constructed so as to allow children to play outside when weather conditions are poor.

# Duty or logistics rooms

Entrance hall, reception and meeting areas

# Kitchens and auxiliary premises

#### Children's and staff kitchen

The location of the kitchen and auxiliary premises must comply with the principles and standards for hygiene, food preparation and fixtures for rooms described in Section I.3.4. Catering.

The kitchen must be located so as to facilitate the rapid and easy distribution of meals. An area must be provided close to the kitchen for storing trolleys and crockery. There must also be a separate vegetable preparation room.

The kitchen equipment must be designed to reflect the size of the crèche, and meet the requirements to be supplied by the Commission.

A 15 m<sup>2</sup> cold zone should be provided within the kitchen and separated from the rest of the area.

The equipment in kitchen rooms must be designed to reflect the size of the crèche, and meet the requirements to be supplied by the Commission.

# **Bottle room** (minimum 20 m²)

Rooms designed for the preparation and storage of infants' bottles must be arranged so as to facilitate the efficient and hygienic distribution of foodstuffs, and must include separate clean and soiled circuits.

These premises must be designed to include:

- a washable ceiling;
- floor-level stainless steel disposal outlets;
- adequate steam extraction above the washing appliances;
- 230-V/380-V conduits.

#### Dishwashing room: $(\pm 50 \text{ m}^2)$

This area must be connected to the rooms described above.

#### It must incorporate:

- an exit for clean items;
- an entrance for soiled items;
- a washable ceiling;
- a floor-level disposal gutter;
- adequate extraction, depending on the equipment installed.

#### Vegetable room:

The vegetable room must be around 30 m<sup>2</sup> in size and must be kept at a temperature of 14 °C. It must have an entrance for soiled items and an exit for clean items.

# Non-food storage area:

The non-food storage area must be at least 70 m<sup>2</sup>.

#### Food storage area:

At least the following must be provided:

- 30 m<sup>2</sup> for three cold storage rooms connected to a freezer room measuring at least 15 m<sup>2</sup>.
- one area measuring no less than 50 m<sup>2</sup> for storing deliveries.

Each of the cold stores and freezer rooms must be fitted with a temperature gauge/thermometer.

# Refuse collection room:

The refuse collection area must be a minimum of 20 m<sup>2</sup> in size and house at least four 1 100-litre bins. The door leading into the premises must be of appropriate dimensions.

See also Section I.3.1. Rooms for a specific purpose.

# Linen rooms:

The linen rooms must be divided into the following areas:

- a room for clean laundry, stitching and ironing, with a minimum area of 35 m<sup>2</sup>, which must not be located at basement level and must have access to natural light,
- a room for soiled laundry, with a minimum area of 5 m<sup>2</sup>, which may be at basement level.

A well-ventilated, basement-level room with a domestic washing machine and a dryer must be provided for washing small items of laundry or soft toys (other laundry is washed by a subcontractor).

#### Workshop:

A repair workshop must be:

- provided for maintenance staff, equipped with a three-phase electric current,
- situated well away from any rooms occupied by children in order to avoid their being exposed to noise from the workshop.

The room must comply with the fire compartment rules for plant rooms (see Section I.1.3. Occupational safety, paragraph 1.3.2. Plant rooms and utility areas).

Main distribution frame room LTG, cabling concentration room LR and intercom system:

A main distribution frame room/cabling concentration room must be provided in order to accommodate the telephone switchboard, the live equipment of the data network and the intercom system. See Section I.3.2. Specialised rooms.

#### Centralised technical management system room:

A room of at least 9 m<sup>2</sup> located near to the security desk must be provided for housing the centralised technical management units.

#### Fire detection:

The fire detection units should preferably be located at the security desk.

# **Utility sink:**

There must be a utility sink room with a tap on each floor for use by cleaning staff. This room must be integrated into the toilet block.

# Communal facilities for staff:

# *Toilets/washrooms for catering staff:*

For further details regarding toilets, changing rooms and showers for catering staff, see Section I.3.4. Catering.

# *Toilets/washrooms for teaching staff:*

Toilets, changing rooms and showers must be provided for teaching staff (the majority of whom are female,  $\pm 90\%$ ).

See also Section I.3.1. Rooms for a specific purpose, paragraph 3.2 Changing rooms for security guards, technical and cleaning staff.

#### Canteen:

The canteen must meet the following specifications:

- it must have an adequately large area on the basis of a specific assessment (Office for Infrastructure and Logistics, Operations and Services and Childcare Facilities),
- provision must be made for the installation of self-service canteen fittings.

The catering equipment in the canteen must be designed to reflect the size of the crèche and comply with the requirements to be supplied by the Commission.

#### *Rest room for teaching staff, separate from the rest and treatment room:*

The size of the room must be designed to reflect the number of members of staff.

#### Rooms for educational psychologists:

- Two offices accommodating at least four people for meetings.

#### Meeting rooms:

- Two meeting rooms for 35 people (87.5 m<sup>2</sup>), with space for video and projector equipment. It must also be possible to use the room to hold training courses.

#### Rooms for administrative staff:

- one office for the crèche manager
- one office for two secretaries
- two individual offices for coordinators
- two individual offices for other administrative staff.

# Outreach team room, if necessary

# Medical service premises:

These rooms should offer the doctor a suitable level of privacy for meeting parents.

The medical service premises must be separated from the flow of general traffic in the crèche. They should preferably be linked to or close to the garden/courtyard.

The paediatrician's office and the sickbay must connect to the waiting room. These rooms must have a good level of natural light and must be sufficiently well-lit for carrying out medical examinations.

# Nurses' office: sickbay

This room must accommodate three nurses and enable them to receive parents and their children.

The room must be equipped with a treatment area containing a unit with a work surface approximately three metres long, a washbasin with hot and cold water, a bath and four electric sockets. It must be possible to operate the tap using an elbow. The unit must also be equipped with a small, non-slip, built-in foldaway stepladder.

In addition, there must be one elongated area and sufficient space to accommodate a printer, telephones, computers, a few items of medical equipment supplied by the relevant department, two filing cabinets with deep drawers, one cupboard for medication and one cupboard for supplies.

# Paediatrician's office:

The office must be equipped with a treatment area identical to that in the sickbay.

The electricity supply and cabling must allow for the installation of a telephone, a computer and a few pieces of medical equipment supplied by the relevant department.

# Waiting room, adult and child toilets:

The waiting room must be situated reasonably far from the main entrance route into the crèche, but must be easy to find.

This area does not necessarily need to be lit by daylight.

Adult and child toilets must be provided close to the waiting room.

The waiting room must feature a separating barrier for the door towards the corridor.

# Storage areas

Storage areas must be designed in compliance with the fire safety requirements set out in Section I.1.3. Occupational safety, paragraph 1. Fire safety.

## Buggy and pram storage area

A room measuring around 40 m<sup>2</sup> must be provided close to the entrance to the building for the storage of infants' pushchairs.

# Storage of toys/learning materials:

The storage area for toys/learning materials must be at least 70 m<sup>2</sup>.

#### Children's furniture storage:

The storage area for children's furniture must be at least 100 m<sup>2</sup>.

#### Storage of cleaning products:

The storage area for cleaning products must be at least 15 m<sup>2</sup>.

# Storage of cleaning trolleys

#### Storage of evacuation beds:

Areas must be provided for storing baby evacuation beds, depending on requirements.

It is recommended that two such areas be provided close to the emergency lifts or stairs.

# **Archives**

# Storage room for medical materials

This room must be reserved for the medical service.

## 1.3. Layouts

The performance levels specified below must be observed in addition to the requirements set out in Sections I.1. Architecture and construction and I.2. Building services and equipment.

# 1.3.1. Accessibility for persons with reduced mobility

The building must be accessible for persons with reduced mobility. See Section I.1 Architecture, paragraph 5. Accessibility for persons with reduced mobility.



# **Specific technical specifications**

The width of all doors must guarantee a clearance of at least 95 cm.

# 1.3.2. Protection against malicious acts

The crèche must be equipped with security posts (at pedestrian and vehicle entrances and exits) and security access facilities (car park barriers etc.).

See Section I.1.2. Protection against malicious acts and I.2.9. Protection against malicious acts.

# 1.3.3. Fire safety

## 1.3.3.1. Evacuation

For the purposes of facilitating evacuation, the number of floors in the building should be kept to a minimum within the parameters of the architectural project and the requirements set out in the safety assessment.

In order to evacuate the building, staff must lead children to safety by first moving out of the area comprising the danger and evacuating horizontally into a safe area. Once a safe area has been reached, children must be evacuated vertically towards the assembly point, by means of either the lifts or the stairs.

The crèche must be designed to include emergency exits and emergency staircases suitable for use by children and large lifts to facilitate the evacuation of babies in beds and/or an effective alternative system (the fire brigade's advice should be sought on this subject).

Wheeled beds must be used in an evacuation, with several babies placed in each bed. It is essential that the routes to be used by wheeled beds are entirely even and without steps or changes in level, especially with regard to the route leading to the assembly point.

The assembly point for children and babies must not be in the street, as is the case for office buildings, but at a point separated from the crèche building by a sufficiently large open area (courtyard or garden).

The assembly point must provide shelter from adverse weather conditions and must be large enough to accommodate all the occupants of the crèche.

# 1.3.3.2. Compartmentation and fire resistance

The building must be compartmented by means of fire walls in accordance with the the Order of the College of Commissioners implementing the Ordinance of the Commission of the European Communities of 23 March 2017 on the organisation of the childcare facilities and the Decree of the Flemish Government of 5 October 2001 laying down fire prevention standards.

The different 'units' accommodating children must be separated by means of EI 30 internal walls and EI<sub>1</sub> 30 doors.

All rooms must be ventilated, heated and well-lit, and must receive daylight. They must be easy to clean.

#### 1.3.3.3. Access to the building by firefighters

The building must comply with the access requirements for the emergency services (fire and ambulance).

# 1.3.4. Operating safety

# 1.3.4.1. Risk of slip and fall accidents

See Section I.1.3. Occupational safety, paragraph 2.1.



# **Specific technical specifications**

The flooring materials in the bathrooms of the units should preferably be non-slip tiles.

## 1.3.4.2. Risk of impacts against glazed surfaces and doors

See the applicable legislation.



# **Specific technical specifications**

All the doors in the units (between the activity/dining room, rest room/dormitory and bathroom) must have small windows at a height suitable for children, and the door between the activity/dining room and the reception area must have a small window at a height suitable for adults.

# 1.3.4.3. Risk of falling from height

See Section I.1.3. Occupational safety, paragraph 2.3.



# **Specific technical specifications**

# Staircases:

Staircases must be equipped with double-height handrails (at 0.40 m and at 0.90 m in relation to the edge of the steps, in accordance with the recommendations issued by ONE).

Ramps, staircases and landings must be designed in such a way as to prevent children from climbing them, in accordance with standards NBN B 03-004 Railings and NBN S 23-002 Glazing.

## Windows:

Opening windows must be of a tilt and turn design and equipped with adjustable, sturdy mechanisms that limit how far they can be opened.

French windows must be sliding.

# Railings:

In addition to the requirements set out in the standards NBN B 03-004 Railings and NBN S 23-002 Glazing, and the recommendations issued by ONE, railings must be designed in such a way as to reduce the risk of their being climbed by children. The design must also rule out the possibility of children using the railings as a grip or support in order to climb on top of them. To this end:

- Railings or gates with horizontal supports (e.g. crossbars or horizontal elements forming a ladder that children can easily climb) are prohibited.
- Use should preferably be made of railings in which any openings are filled with laminated glass (see standard NBN S 23-002 Glazing).
- Where applicable, the space between vertical bars must be less than 6.5 cm. They must have a diameter of at least 1.25 cm and a height of at least 1.25 m above any surface that might be used as a support.

- Railings must feature an inclined top rail at an angle of 45°, with a depth of 30 cm, extending towards the interior of the balcony.

# 1.3.4.4. Risk of collisions and bumps

Any sharp, protruding features must only be installed at a height somewhat greater than that of a child, i.e. 1.3 m, including furniture and garden and courtyard features. Door frames, metal railings, etc. must therefore be free of them.

The slots and holes of drains, gutters, etc. in areas accessible to children must have rounded corners, and must not be wide enough for children to poke their fingers through.

# 1.3.4.5. Preventing ingestion of harmful substances

Products of this kind (which may include medication) must be stored in a place inaccessible to children, such as a high, locked cupboard.

Harmful substances are also contained in cleaning products. A locked room, situated outside the area in which children are present, must be specially reserved for the storage of these items. It must meet the specifications for high-risk rooms in accordance with Section I.3.1 Rooms for a specific purpose.

# 1.3.4.6. Risk of hands being trapped in doors

Doors must be fitted with a device which prevents fingers being placed between the doorframe and the leaf of the door on the hinged side.

#### 1.3.5. Acoustic comfort

See Section I.1.4. Occupational well-being, paragraph 3. Acoustic comfort.

In accordance with the applicable legal standards, the occupants of neighbouring buildings must not be subjected to aggravating noise pollution as a result of the noise made by the children and generated by the technical installations.



# Specific technical specifications

The interior comfort levels to be achieved in the units are as follows, in accordance with standard NBN S 01-401:

Rooms	L <sub>Aeq</sub> (dBA)
Dormitory	30-40
Activity/dining room	40
Bathroom	40
Reception	40

#### **1.3.6. Hygiene**

The materials used for constructing and finishing the building and for furniture must be suitable for children. The type of materials used must meet legal standards and no prohibited materials may be included; see Annex I List of prohibited materials.



# **Specific technical specifications**

# Floor covering:

Fitted carpets must never be used to cover the floors of premises occupied by or accessible to children.

Smooth and washable flooring materials must be used. A soft and hypoallergenic linoleum-type floor covering may be used (see Section I.1.6. Structural elements and finishes, paragraph 6. Coverings).

#### Wood:

Wooden furniture and fixed outdoor toys must not be treated with products that are likely to cause poisoning if they come into contact with children's hands or mouths.

#### 1.4. Building services and equipment

#### 1.4.1. Telecommunications

Telephones must be installed in the activity rooms and in the bathrooms.

Wall sockets must be located at a height of 1.50 m from the floor.

See also Section I.2.2. Telecommunications.

# 1.4.2. Heating, ventilation, air conditioning (HVAC)

See Section I.2.3. Heating, ventilation, air conditioning (HVAC).

The interior comfort levels to be achieved are as follows, in compliance with the applicable legislation:

Room	Temperature (adjustable		Relative humidity %	
	range)			
	Winter	Summer	Winter	Summer
Dormitory	18-22 <sup>3</sup>	25-27 <sup>4</sup>	40-70	NC
Activity/dining room	20-22	NC	40-70	NC
Bathroom	20-22	NC	40-70	NC
Reception	20-22	NC	40-70	NC
Corridor	20-22	NC	NC	NC

NC: not controlled

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# **Specific technical specifications**

The dormitories and activity rooms must be treated as different temperature zones, and the HVAC installations must allow the temperature and (where applicable) ventilation in each of these zones to be regulated separately.

In particular, the system must be designed to maintain a temperature of between 18 and 22 °C in the dormitories and a temperature of between 20 and 22 °C in the activity rooms or bathroom, in both cases in winter. The temperature of the ventilation air in the two rooms must also be regulated separately.

The ventilation air may also be used to cool the rooms in summer.

#### 1.4.3. Electricity and lighting

See Section I.2.4 Electricity and lighting.

The lighting of units must comply with the specifications referred to above, in accordance with standard NBN EN 12464-1<sup>5</sup>:

<sup>&</sup>lt;sup>3</sup> In accordance with the Commission's recommendations for medical services in crèches, the dormitories must not be heated to above 18 to 20 °C for babies aged less than 12 months.

<sup>&</sup>lt;sup>4</sup> In accordance with the Commission's recommendations for medical services in crèches, air-conditioning systems may only be used if the outside temperature is 25 °C or higher. Differences in temperature of 5 °C or more between the dormitory and the other rooms must be avoided.

<sup>&</sup>lt;sup>5</sup> NBN EN 12464-1 Light and lighting of workplaces – Part 1: Indoor workplaces.

Room	Type of lighting	Em (lux) Minimum lighting	UGR Maximum glare
Rest room/dormitory	Can be dimmed manually	300	19
Bathroom	Can be dimmed manually	300	19
Activity/dining room	Can be dimmed manually	300	19
Kitchenette		300	19
Reception area		200	19

In the event that sources of light are located close to the floor, measures must be taken to avoid the light shining into the eyes of any babies who are lying on the floor. Lighting should preferably be indirect.

# Stand-alone power source:

- The crèche must be equipped with a stand-alone power source that supplies all of the emergency installations.

See Section I.2.4. Electricity and lighting.

## Prevention of electric shocks:

- Electric sockets must be installed at a height of at least 1.5 m from the floor in areas used by children (with the exception of administrative and technical areas).
- Sockets must be covered with standard child protection devices.

#### 1.4.4. Plumbing

See Section I.2.5 Plumbing.

#### 1.4.5. Lifts and escalators

The crèche must be provided with:

- goods lifts;
- evacuation lifts to facilitate the evacuation of babies in beds and/or an effective alternative system (the fire brigade's advice should be sought on this subject).

See Section I.2.6. Lifts and escalators.



# **Specific technical specifications**

## Goods lifts:

The crèche must have at least:

- a service lift (soiled circuit) serving all floors, in the vicinity of and with unobstructed access to the unloading area,
- a service lift (clean circuit) not accessible to parents or children, for carrying goods and meals.

## **Evacuation lifts:**

The lift must accommodate two evacuation beds<sup>6</sup> and two adults (minimum dimensions of lift car: 1.40 x 2.00 m).

# 1.1.1. Fire safety

The building must have equipment for detecting and fighting fire in compliance with the regulations for school buildings and as set out in the Commission's requirements.



# **Specific technical specifications**

The building must have:

- a fire detection system in accordance with Section I.2.7. Fire protection, paragraph 2. Fire detection, alerts and alarms,
- the alarm system must consist of a siren network and an intercom network serving all the rooms (including the plant rooms, depending on requirements), with speakers with an adjustable volume control mechanism linked to the reception and backed up by a flashing red light in the activity rooms and the dormitories.

The order to evacuate is a message read out over the intercom system (alarm).

Sirens may be activated again after the children have left the building. The sirens must also be used to bring the evacuation phase to an end.

## 1.5. Furniture

The crèche project must include fitted furniture which is custom-made and incorporated into the structure of the premises. This relates in particular to changing-room furniture, bathroom and treatment room fittings, kitchenette fixtures and fittings, and garden features and toys.

The furniture must have an ergonomic design if possible.

#### 2. AFTER-SCHOOL CENTRE

## 2.1. Layout and organisation

The number of activity rooms will depend on the project.



# Specific technical specifications

An after-school centre must consist of the following rooms:

- activity rooms:

The minimum surface area of each room intended for use by children must conform to the legal standards defined by Belgian inspection agencies (ONE and/or Kind & Gezin [Child and Family]). The maximum occupancy of the rooms is 14 children and one adult with at least  $4 \text{ m}^2$  of floor space per person.

All rooms must be well-lit and must receive daylight. They must be ventilated and heated. They must be easy to clean. The shape of the room must facilitate the positioning of furniture;

Suitable and effective protection from direct sunlight must be installed to prevent rooms from heating up during sunny periods, while allowing daylight to penetrate the area in which time is spent.

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<sup>&</sup>lt;sup>6</sup> As a guideline, the evacuation beds should have dimensions of 125 cm x 70 cm.

The rooms must be designed so that the temperature does not exceed 27 °C, even in summer.

The power sockets must be located at a height of 1.5 m, and must be covered with standard child protection devices.

Each activity room must be equipped with cold water taps, with a sink at a height suitable for children and one at a height suitable for adults.

- study room:

A study room must be provided.

The size of the room will be determined according to the project (approximately 60 m<sup>2</sup> for 10 groups).

- children's toilets:

The size and installation of these toilets must also be adapted to the needs of small children (4-6 years).

The sizes are similar to those described in Section I.3.1. Rooms for a specific purpose, paragraph 3. Welfare facilities, but changes may be requested depending on the project.

#### II.2.3. CONFERENCE AND MEETING ROOMS

#### 1. CONFERENCE AND MEETING ROOMS

#### 1.1. Layout and organisation

Meeting and conference rooms are rooms designed as such in the original structure of the building and fitted with all the technical installations required to organise international meetings (working meetings where participants play an active role) and conferences (where participants play a more passive role)<sup>7</sup>.

Their configuration, capacity and equipment will be stipulated by the Commission for each project (auditorium, meeting room, etc.). They may incorporate interpreting booths and be designed to include a local control room, a foyer for receptions and exhibitions, changing rooms, IT corners, press corners, VIP areas, toilets/washrooms, rooms for the conference technicians on duty, offices for employees providing logistics and organisational support at conferences, and appropriate storage areas depending on requirements.



# **Specific technical specifications**

Meeting and conference rooms:

In general, the equipment in these rooms must include:

- audiovisual and video-conferencing installations;
- black-out blinds;
- special furniture which is fixed in place and which incorporates equipment, and/or furniture that can be moved around;
  - a service area where mobile control desk could potentially be located.

<sup>&</sup>lt;sup>7</sup> The meeting rooms described below are not those planned within or near office areas and reserved for the use of the departments occupying the building. These latter are covered in Section I.3.1. Rooms for a specific purpose, paragraph 5. Meeting rooms.

# Fixed furniture for meeting and conference rooms:

The furniture must be designed to fit the configuration of the meeting and conference rooms and comply with the requirements to be supplied by the Commission.

As a general rule, the following fixed furniture must be provided for meeting and conference rooms:

- tables for participants, the speaker and the chairperson, made from non-reflective materials and designed in such a way as to avoid any negative impact on photographs/videos. The table must have an available work surface of 65 cm in depth,
- podium and lecterns,
- work surfaces in interpreting booths and control rooms.

The tables must incorporate technical installations, as well as:

- 230-V and USB sockets for mobile phone, PC chargers, etc.;
- screens for displaying information in the event that participants will not be easily able to read the content projected in the room on the basis of the concept for the visual system.

#### **1.1.1.** Fovers

The foyer must provide direct access to the meeting and conference rooms. It must also allow for the circulation of employees and visitors and accommodate 'pop-up' cafés, banquets and exhibitions in connection with one or more conferences.

A help desk may also be provided in the foyer in order to answer participants' questions and help them to find their way around.

# 1.1.2. Interpreting booths

In the event that interpreting booths are provided, they must comply with the standards listed below and with the requirements to be provided by the Commission:

- ISO 2603 Simultaneous interpreting Permanent booths Requirements
- ISO 20108 Simultaneous interpreting Quality and transmission of sound and image input

   Requirements
- ISO 20109 Simultaneous interpreting Equipment Requirements.

## 1.1.3. Rooms for interpreters

Rooms for interpreters must comply with the requirements of standard ISO 2603 Simultaneous interpreting – Permanent booths – Requirements.

Toilets must also be located close to the booths.

#### 1.1.4. Local ops rooms and audiovisual technical premises

In the event that provision is made for local control booths, in particular for conference rooms, they must comply with the requirements imposed by the Directorate-General for Interpretation (DG SCIC).

These control booths must facilitate easy management of and intervention in meetings and events requiring high-level technical support.



## **Specific technical specifications**

# General provisions:

Local control rooms must be designed in such a way that the operator can handle the equipment without any interruptions. These local control rooms must comply with certain criteria:

- they must be large enough to accommodate two technicians/operators in charge of controlling the audio, lighting and video systems and/or the permanent/mobile equipment used in the rooms,
- all workstations in these control booths must have an unobstructed view of the room, and must not be located behind the podium or the chairperson's table,
- they must have an unobstructed view of all the equipment required by a technician,
- they must allow easy access to the area where technical equipment is stored in order to facilitate any equipment set-up changes, as well as easy access to the room and the interpreting booths,
- the control room must provide a full overview of all the video sources in the rooms,
- the acoustic requirements must be met.

# Audiovisual technical premises:

The racks for audiovisual equipment must be installed in specific rooms that can be accessed rapidly by the ops directors.

## 1.1.5. Central ops room

The technical specifications for the central ops room (where the audiovisual, video-conferencing, interpreting, etc. installations are controlled) will be provided by the Directorate-General for Interpretation (DG SCIC) depending on requirements.

# 1.2. Layouts

# 1.2.1. Accessibility for persons with reduced mobility

See Section I.1.1. Functionality, paragraph 5. Accessibility for persons with reduced mobility.

Meeting and conference rooms must be accessible for persons with reduced mobility in accordance with the applicable legislation and the Commission's requirements.

The accessibility of interpreting booths (where present) to persons with reduced mobility must comply with standard ISO 2603 Simultaneous interpreting – Permanent booths – Requirements.



# **Specific technical specifications**

## Rooms with seating:

In accordance with the Commission's requirements:

- the platform, podium or speakers' table (where applicable) must be accessible by wheelchair.

#### 1.2.2. Fire safety

See Section I.1.3 Occupational safety, paragraph 1. Fire safety.



# **Specific technical specifications**

# Fire resistance of furniture:

- Curtains or drapes must be made from a flame-proof material (e.g. M1 within the meaning of standards NF P92.503-507, classes 1 to 3 in accordance with standard EN 13773 or an equivalent standard),
- The covers used for the seats and backs of chairs and, where applicable, any foam padding must be non-flammable (e.g. in accordance with standard EN 1021, class M1 within the meaning of NF P92.503-507 or an equivalent standard).

# Projector installations:

The projectors must be adequately ventilated and separated from combustible materials.

#### 1.2.3. Acoustic comfort

See Section I.1.4. Occupational well-being, paragraph 3. Acoustic comfort.

Interpreting booths, where present, must comply with the acoustic performance requirements of standard ISO 2603 Simultaneous interpreting – Permanent booths – Requirements.

The Commission reserves the right to demand that acoustic measures be carried out in accordance with the version of standard ISO 2603 in force at the time when the request for action is submitted.

### 1.2.4. Visual comfort

All meeting and conference rooms must have natural lighting.

## 1.2.5. Hygrothermal comfort and internal air quality

See Section I.2.3. Heating, ventilation, air conditioning (HVAC).

# 1.2.6. Hygiene

See Section I.3.1. Rooms for a specific purpose, paragraph 3. Staff welfare facilities.

#### 1.2.7. Remote management

See Section I.2.1. Remote management.



## **Specific technical specifications**

Remote management interfaces for technical installations (HVAC, lighting, audiovisual equipment, etc.) and for the control of blinds etc. must be installed in the room and in the local control room.

## 1.2.8. Telecommunications

Technical specifications will be supplied by the Commission depending on requirements once the project concept is finalised.

See Section I.2.2. Telecommunications.

The proposed solutions must take into account the latest technological developments available.

# 1.2.9. Electricity and lighting

Emergency lighting (lighting of evacuation routes and anti-panic lighting<sup>8</sup> within the meaning of standard NBN EN 1838) must be installed.

Emergency lighting must be installed along escape routes and in areas open to the public (people not familiar with the building).

<sup>&</sup>lt;sup>8</sup> In meeting and conference rooms with a capacity of more than 40 persons, foyers, lobbies, halls and other circulation zones with an area of over 100 m<sup>2</sup>, and in restaurants and cafeterias.

See Section I.2.4 Electricity and lighting.

For specific lighting needs in rooms where video cameras are likely to be used, reference should be made to the specifications by the Directorate-General for Interpretation (DG SCIC) and standard NBN EN 12464-1 Light and lighting – Lighting of workplaces – Part 1. Indoor workplaces.

# No.

# Specific technical specifications

The lighting control system must provide for lighting scenarios in different areas.

It must be possible to control the lighting system from the room and from the local and central ops rooms (see paragraph 1.2.7. Remote management).

# 1.2.10. Fire safety

# Alarm, alert and detection system

See Section I.2.7 Fire safety.



# Specific technical specifications

A PA system linked to the reception desk of the building, which can also be used for broadcasting instructions in the event of an emergency, must be provided.

# 1.2.11. Audiovisual, video-conferencing and interpreting installations

Technical specifications for audiovisual, video-conferencing, interpreting and other installations (e.g. voting systems) will be supplied by the Directorate-General for Interpretation (DG SCIC) depending on requirements.

These installations must also include conference signage (arrangements for interpreting languages, titles and times of meetings (outside the room), and other displays).

The proposed solutions must take into account the latest technological developments available.

The Directorate-General for Interpretation will also stipulate any requirements for 'as-built' documentation, commissioning and training in respect of these installations.

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