Buildings Department

Practice Note for Authorized Persons and Registered Structural Engineers

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Calculation of Gross Floor Area and Non-accountable Gross Floor Area Building (Planning) Regulation 23(3)(a) and (b)

Calculation of Gross Floor Area

Building (Planning) Regulation 23(3)(a) stipulates that gross floor area (GFA) is the area contained within the outer surface of external walls of a building measured at each floor level. Any portions of this area not floored over must be included in the plot ratio calculations.

- 2. However where large voids occur, a modification of Building (Planning) Regulation 23(3)(a) may be granted on application in the following circumstances:
 - (a) in front of cinema and theatre balconies;
 - (b) in banking halls and shopping arcades where mezzanine floors are provided;
 - in single-staircase buildings in which cockloft floors are provided in the ground storey;
 - (d) in auditoria, sporting halls (including squash courts), school halls and religious institutions; and
 - (e) in main entrance lobbies to hotels.
- In the case of "split level" designs where the difference in level between adjoining floors is less than 1 m, the floor may be regarded as being level for the purposes of this regulation. For greater differences in level, the authorized person should clarify with the Buildings Department before embarking on the project.
- 4. Subject to the special circumstances of each case, the Building Authority is in general prepared to consider favourably application for modification in respect of:
 - (a) chimney shafts forming an integral part of a new building;
 - (b) fire refuge areas which observe the stated criteria (see Code of Practice for Means of Escape);
 - (c) covered areas clearly intended for and designed as playgrounds (see PNAP 116); and
 - (d) swimming pool filtration plant rooms.

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- 5. Where a curtain wall system forms the external face of a building, the Building Authority is prepared to accept the outer face of the structural elements, e.g. beams, columns and floor slabs, as the external wall for the purpose of measurement of GFA where:
 - The curtain wall system itself does not form part of the structural system of the parent building;
 - The system does not result in any additional floor area at a floor level; and
 - The projection of the system from the outer face of the structural elements does not exceed 300 mm.
- 6. Cladding may take a variety of forms and as a general rule, should be considered individually for the purpose of measuring GFA. In the case, however, of a form of cladding which may be equated in its design to a curtain wall system, the method of measure of GFA given in para. 5 above may be adopted as indicated in Appendix A.
- 7. Sketches illustrating the above principle for the measurement of GFA are at Appendix A.

Non-accountable Gross Floor Area

- Regulation 23(3)(b) may generally be interpreted to include water tanks, boiler rooms, electrical switch rooms, meter rooms, transformer rooms, generator rooms, pump rooms, telephone equipment rooms, cable riser duct room, lift machinery rooms, CO2 rooms, sewage treatment plant rooms and smoke extract ducts in hotels. In each case, the size of any such feature and its location should be appropriate to the layout and size of the main building. Similarly, provided that the facilities have been planned to suit the factors listed in PNAP 98, the area of refuse container chambers, refuse hopper rooms (including associated chutes) and refuse storage chambers may also be discounted.
- 9. The horizontal area of staircases, lift shafts and vertical ducts should normally be measured for gross floor area together with the floor through which they pass. However, where these features pass through a floor accepted as not being accountable for gross floor area (by reason of the captioned regulation), the area of the features may also be discounted, with one exception. The exception is that entrance lobbies, lifts, staircases and exit corridors at the level(s) of main access to a building from the street(s) should always be included in the measurement for gross floor area. In such locations, these features have a local function and do not merely pass through a floor.

10. The exclusion from accountable gross floor area of any floor space used solely for parking, or for loading and unloading, of motor vehicles is affected by many related factors. It is not possible to issue a comprehensive guide on provisions for these purposes. Each case needs to be determined on its merits and with particular relevance to the location of the building, the planned occupancy and any reasoned justification for the facilities proposed.



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Building Authority

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Index under : B(P)R 23(3) - Calculation of Gross Floor Area and Non-accountable

Gross Floor Area

Cladding

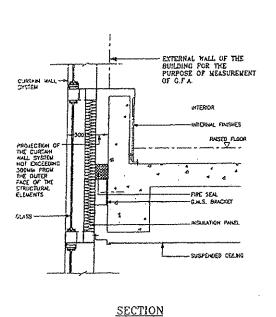
Curtain wall system

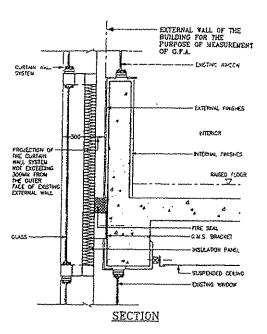
Gross Floor Area Calculations Gross Floor Area Exclusions Non-accountable Gross Floor Area

Appendix A PNAP 13

CURTAIN WALL SYSTEM INSTALLED AT NEW BUILDING

CURTAIN WALL SYSTEM INSTALLED AT EXISTING BUILDING





CLADDING SYSTEM INSTALLED

