

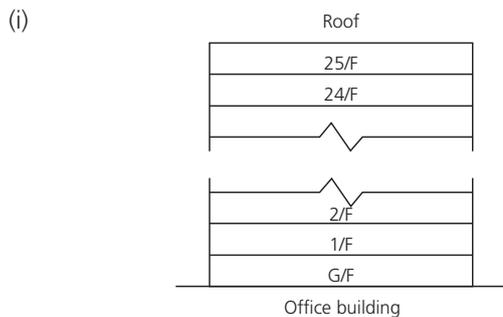
A Few Tricky Queries on Means of Escape

Terry K. Y. NG, MSc MRICS MHKIS MCIQB

In this article, I shall look at a few queries about means of escape provision in 2 aspects.

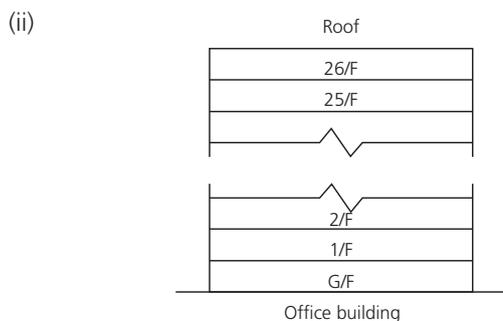
A. In the refuge floor aspect

In paragraph 21.1 of the MOE Code, subject to a special treatment for domestic or composite building of not more than 40 storeys above the lowest ground storey, refuge floors should be provided in all buildings exceeding 25 storeys in height above the lowest ground storey, at not more than 20 storeys and 25 storeys respectively for industrial and non-industrial buildings from any other refuge floor or above the street. Owing to the fact that domestic and composite buildings are of lower risk in that they tend to have a smaller compartment and the occupants are familiar with the layout of the buildings, the above general requirement is relaxed for these buildings of not more than 40 storeys above the lowest ground storey but the roof has to be designed as a refuge floor. I was once asked the following queries:



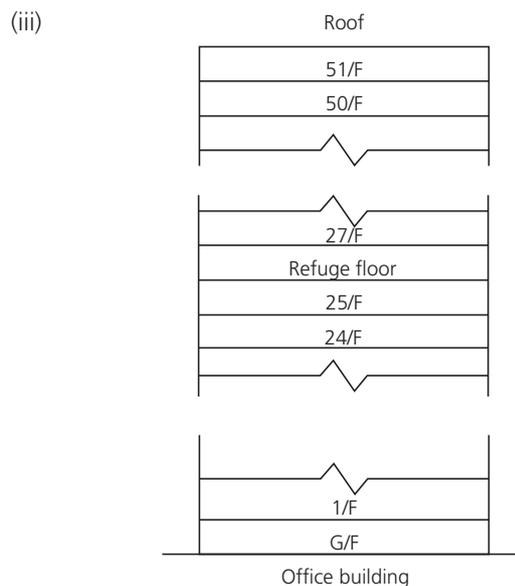
There is no designated use for the roof. For the sake of clarity, the parapet wall on the roof is omitted.

Query: Is it necessary to provide a refuge floor?



There is no designated use for the roof. For the sake of clarity, the parapet wall on the roof is omitted.

Queries: Is it necessary to provide a refuge floor? If the answer is affirmative, does it comply with the requirements in paragraph 21.1 of MOE Code if the roof is designated as a refuge floor?



There is no designated use for the roof. For the sake of clarity, the parapet wall on the roof is omitted.

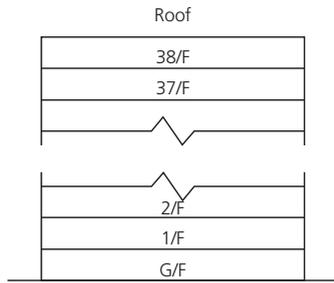
Query: In this building, an intermediate floor has already been designated as a refuge floor. There are 25 storeys between the G/F and this refuge floor. There are also 25 storeys above this refuge floor. Is it necessary to designate the roof as a refuge floor?

B. In the interchange of staircase aspect

Paragraph 11.2 of the MOE Code concerns interchange of staircase for buildings requiring 2 or more staircases. The interchange can take place on every floor or, in the case when refuge floors are provided, at the refuge floor and the roof. I was once asked to answer the following queries:

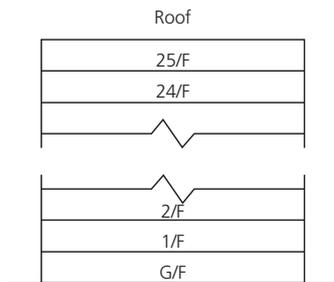
(iv)

This is a domestic building. To comply with the requirements in paragraph 21.5, the roof is designated as a refuge floor. Apart from the roof, there is no other refuge floor in this building. No interchange of staircase can take place at all floors above the G/F. The query is whether this building meets with the requirement in paragraph 11.2:



For the sake of clarity, the parapet wall on the roof is omitted.

(v) This is a domestic building. No interchange of staircase can take place at all floors above the G/F. The roof is designated as a refuge floor. The query is whether this building meets with the requirement in paragraph 11.2:



For the sake of clarity, the parapet wall on the roof is omitted.

For (i), as there is no designated use for the roof, it is not considered as a storey for the purpose of the MOE Code. Hence the number of storey above the lowest storey i.e., the G/F, is only and not greater than 25. It thus marginally meets the criterion for non-provision of refuge floor.

The building in (ii) is 1 storey higher than the one in (i), it does not meet the criterion for non-provision of refuge floor. Although the roof has been designated as a refuge floor, the number of storey above the lowest ground floor is 26, exceeding the maximum 25. The building thus cannot meet the requirement under paragraph 21.1.

The situation in (iii) is actually similar to that in (i) as the intermediate refuge floor in (iii) is analogous to the G/F in (i) for the purpose of paragraph 21.1. In this case, occupants on 51/F have to descend 25 storeys to reach the refuge floor. It therefore meets the maximum 25-storey requirement in paragraph 21.1. It is thus unnecessary to designate the roof as a refuge floor.

The query in (iv) comes from the argument that the roof is a roof as well as a refuge floor. Some people opine that it meets the criterion for interchange of staircase in this 39-storey domestic building under paragraph 11.2 of the Code, i.e. at refuge floor and the roof. One should note that the acceptance of the refuge floor on the roof is a concession for domestic building not exceeding 40 storeys above the lowest ground floor and has nothing to do with interchange of staircase. In this building, occupants on 38/F have to descend 38 storeys without the option of changing staircase, i.e. 13 storeys more than the maximum floor interval between 2 refuge floors where escapees can change staircase. The ambiguity stems from the phrase 'refuge floor(s) and the roof' in paragraph 11.2, whether it refers to 2 different uses or 2 locations. As the concept of interchange of staircase relates to changing the escape route from one to a safer one, it concerns with location rather than the use of the place where the interchange can take place. In conclusion, it requires interchange of staircase to take place at 2 different locations, i.e. refuge floor and the roof.

The necessity of the roof being a place where occupants can interchange staircase is particularly important in situation like (iii). If the occupants above the intermediate refuge floor encounter smoke on their way down the staircase, they have to go to the other staircase. If they cannot interchange staircase at every floor, they must be able to do so at the roof, otherwise they would suffer from the effect of smoke.

In (v), the building actually is not required to comply with the requirement of paragraph 21.1 as it has got 25 storeys above the lowest ground storey only. The provision of a refuge floor on the roof is to comply with the requirement in paragraph 11.2. The query comes from the 2-location requirement in paragraph 11.2. Here the occupants on 25/F have to descend 25 storeys to reach the street which is considered as a place of ultimate safety. The street is even safer than a refuge floor and hence the purpose of paragraph 11.2 is achieved. The answer to the query is thus affirmative. ■

A Way Out For Development Intensity

Terry K. Y. NG, MSc MRICS MHKIS MCIQB

Introduction

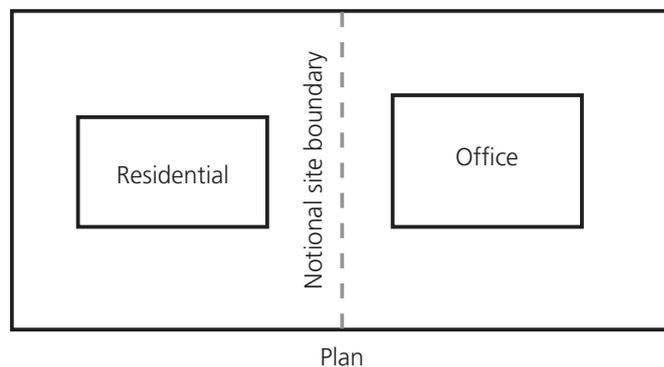
It is well known that Building (Planning) Regulation 21(2) is the appropriate reference when the development intensity of a composite building has to be determined. The principle of this regulation is that what remains unutilized in the non-domestic portion is transferred proportionately to the domestic part of the composite building.

Omission of the regulation

This regulation works well to a typical composite building which consists of a residential block over a commercial podium. It also works well when there are more than one residential block provided the building heights of these tower blocks fall into the same band in Schedule 1 of the Building (Planning) Regulation. In case when the tower blocks are of different use or when the building heights do not fall into the same band, Building (Planning) Regulation seemingly does not cover these situations, nor does the Practice Notes for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers issued by the Buildings Department.

There is one way to deal with these situations, which has long been forgotten. It is known as residual site area method. The principle of this method is to assess the notional site area that can sustain each tower block. If the total notional site area is less than actual site area, the proposal is feasible as far as development intensity is concerned. To illustrate this method, let us consider a building proposal which consists of one residential and one office tower blocks in a Class C site.

A way out



Area of site: 2000m²

Classification of site: C

Office block

Building height: 105m

No. of storey: 30

GFA of each storey: 500m²

Building footprint: 500m² (Same as GFA for simplicity sake)

Residential block

Building height: 54m

No. of storey: 18

GFA of each storey: 360m²

Building footprint: 360m² (Same as GFA for simplicity sake)

From Schedule 1 of Building (Planning) Regulation, the permitted plot ratio and site coverage are:

Residential tower block: 7.5 and 42%

Office tower block: 15 and 65%

Computation of the notional site area

Residential block

In terms of plot ratio, the notional site area is:

$$\frac{18 \times 360 \text{ m}^2}{7.5} = 864 \text{ m}^2$$

In terms of site coverage, the notional site area is:

$$\frac{360 \text{ m}^2}{42\%} = 857 \text{ m}^2$$

The larger figure, i.e. 864m², is adopted as it is the area that can sustain the residential block in terms of both plot ratio and site coverage.

Office block

In terms of plot ratio, the notional site area is:

$$\frac{30 \times 500 \text{ m}^2}{15} = 1000 \text{ m}^2$$

In terms of site coverage, the notional site area is:

$$\frac{500 \text{ m}^2}{65\%} = 769 \text{ m}^2$$

The larger figure, i.e. 1000m², is adopted as it is the area that can sustain the office block in terms of both plot ratio and site coverage.

The total notional site area is:

$$864\text{m}^2 + 1000\text{m}^2 + 1864\text{m}^2 < 2000\text{m}^2 \text{ (Actual site area)}$$

The proposal is thus feasible as far as permitted development intensity under Building (Planning) Regulations 20 and 21 is concerned.

There are a few points to note in this method:

- i. The exact position and alignment of the notional site boundary is immaterial as it is the area which matters.
- ii. The site classification of the two notional site areas is immaterial as the tower blocks are within the same site.

A more practical way of using the method

This method can be used in the situation where the tower blocks sit on a commercial podium. In this situation, the podium has to be severed and assigned to each tower block. The exact position of the cutting is immaterial. However it must be in the same position on each floor of the podium because there is only one site area for each site for the purpose of Building (Planning) Regulations 20 and 21. It does not matter even if the cutline is in the middle of a room within the podium. This is because the podium does not actually have to be physically separated for the purpose of this exercise. In assessing the notional site area, the tower block together with the associated podium has to be taken into consideration. In other words, the notional site area has to be able to sustain the composite development.

The example above illustrates how the feasibility of a composite development is checked. This method can be used in various ways for different purposes. One alternative way of using this method is to fix the development intensity of one tower block first and then to find out the maximum development intensity of the other.

I hope this article can assist readers to demonstrate compliance with Building (Planning) Regulations 20 and 21 in the circumstances mentioned above. 

The author is a senior building surveyor retired from the Buildings Department. He wants to share his experience with young surveyors and probationers. What he presents is entirely his personal opinion on the subject and does not represent the view of any party or organisation.

Experts Witness – A Heavier Shoulder

By TT Cheung¹

Introduction

I gave a CPD talk on expert witness to HKIS members on 16 May 2011. There were over 160 members registered for the event. I was impressed that despite the talk overrun to 9:15pm, many members chose to stay behind for the case experience sharing session. I also share with members on the Court's expectation on the performance of expert witnesses and whether expert witnesses were immune from suit.

Immunity from suit

Expert witnesses used to have immunity in respect of both the contents of their reports and their performance in the witness boxes. (*Stanton v Callaghan* [2000] Q.B. 75). The rationale is that if no immunity is given to an expert witness, he may be reluctant to give evidence contrary to his client's interests because of the risk that he may be sued by his client.

On 30 March 2011, the Supreme Court of the UK reversed the Queen's Bench Division's decision on *Jones v Kaney* [2010] EWHC 1 (QB) and held that experts' immunity from suit for breach of duty, whether in contract or in negligence, be abolished. An expert witness can now be sued if it is proved that his negligence has caused harm to the party who instructs him. (*Stanton* overruled in *Jones v Kaney* [2011] 2 W.L.R. 823)

The Supreme Court's decision is not surprising given the removal of immunity from liability in negligence for advocates in *Arthur JS Hall & Co. v Simons* [2002] 1 A.C. 615. The Lords were of the view that there was no longer any scope for contrasting the duty owed by an expert to his client with a different duty to the court. They saw no conflict

between those duties and opined that expert witnesses had that in common with the advocates. The Lords also felt strongly with the presumption that because immunity existed, it should be maintained unless it could be shown to be unjustified.

The Court's requirements on experts' performance

The Rules of the High Court (Cap. 4A) and the Rules of the District Court (Cap. 336H) set out in detail the Courts' requirements of the duties and responsibilities of expert witnesses in Hong Kong.

Expert witness's overriding duty to Court (RHC, O.38, r.35A)

- (1) It is the duty of an expert witness to help the Court on matters within his expertise;
- (2) The duty under paragraph (1) overrides any obligation to the person from whom the expert witness has received instructions or by whom he is paid.

Expert report to be verified by statement of truth (RHC, O.38, r.37A)

An expert report disclosed under these rules must be verified by a statement of truth in accordance with O.41A, r.5. A sample statement is "I believe that the facts stated in this expert report are true and the opinion expressed in it is honestly held."

Expert witness's declaration of duty to Court (RHC, O.38, r.37C)

An expert report disclosed under these rules is not admissible in evidence unless the report contains a declaration by the expert witness that:

- (a) he has read the code of conduct set out in Appendix D and agrees to be bound by it;
- (b) he understands his duty to the Court; and
- (c) he has complied with and will continue to comply with that duty.

Failure to verify expert report (RHC, O.41A, r.7)

If the maker of the expert report fails to verify the expert report by a statement of truth, the expert report is not admissible in evidence unless otherwise ordered by the Court.

Appendix D – Code of Conduct for expert witness (RHC) requires an expert must specify the following matters in his report:

- (a) the person's qualifications as an expert;
- (b) the facts, matters and assumptions on which the opinions in the report are based;
- (c) the reasons for each opinion expressed;
- (d) if applicable, that a particular question or issue falls outside his field of expertise;
- (e) any literature or other materials utilized in support of the opinions;
- (f) any examinations, tests or investigations on which he has relied, and the identity and details of the qualifications of the person who carried them out.

If an expert witness who prepares a report believes that it may be incomplete or inaccurate without some qualification, that qualification must be stated in the report. If an expert witness considers that his opinion is not a concluded opinion because of insufficient research or insufficient data or for any other reason, this must be stated when the opinion is expressed.

The Rules also gives directions on experts' conference:

An expert witness shall abide by any direction of the Court to -

- (a) confer with any other expert witness;
- (b) endeavour to reach agreement on material matters for expert opinion;
- (c) provide the Court with a joint report specifying matters agreed and matters not agreed and the reasons for any non-agreement;
- (d) An expert witness shall exercise his independent, professional judgment in relation to such a conference and joint report, and shall not act on any instruction or request to withhold or avoid agreement.

The Rules of the District Court adopt the same requirements on expert witness as the High Court, except the appendix is Appendix E.

Conclusion

Over the years I have come across a number of expert witnesses who are typically high guns of their clients. Quite a large number are unclear of their roles and act more like an advocate than an expert witness. With the clear Court's requirements and the latest change in Court's ruling on experts' immunity from suit, the responsibilities of expert witnesses will no doubt increase. It is anticipated that there will be more difficult to find good experts with a number of hire guns dropping out of the field. Also, it will be even more difficult to have experts willing to act as single joint expert because of the higher risk of being sued by the party who lose the case. 

¹TT Cheung, B.Sc.(Hons)(QS), MSc, FHKIS, FRICS, FCInstES, RPS (QS), RCE (PRC), Accredited Mediator, DRAd, DIF is an Adjunct Professor of the Department of Real Estate and Construction, University of Hong Kong.