

**GUIDELINES ON PERIODICAL
INSPECTION OF BUILDINGS**

CONTENTS

1. BACKGROUND
2. INTERPRETATION
3. BUILDING TO BE INSPECTED
4. PERIOD OF INSPECTION
5. NOTICE TO OWNER TO CARRY OUT INSPECTION
6. APPOINTMENT OF ENGINEER
7. INDEPENDENCE OF ENGINEER
8. DUTIES OF AN ENGINEER
9. MANNER OF INSPECTION OF BUILDING UNDER THE ACT
10. REPORT OF THE RESULTS OF AN INSPECTION
11. IMPLEMENTATION OF REPAIR WORK
12. CONCLUSION

APPENDICES

- A - Guidelines on Visual Inspection and the Submission of the Report
- B - The Main Contents of a Visual Inspection Report
- C - Guidelines on the Submission of Full Structural Investigation
- D - Guidelines on the Submission of Design and Specification on Remedial Works
- E - Guidelines on the Submission of a Report after Completion of Remedial Works
- F - Notice for Periodical Inspection of Building
- G - Particulars of Professional Engineer
- H - Visual Inspection Certificate
- J - Structural Inspection Certificates
- K - Completion of Remedial Work Certificate

GUIDELINES ON PERIODICAL INSPECTION OF BUILDINGS.

1 BACKGROUND

- 1.1 The requirements for mandatory periodical inspection of building are stipulated under the Building Ordinance (Section 27B) 1994.
- 1.2 The parties involved in the inspection process are:
 - a. The local authority whose responsibility is to ensure that the inspection are carried out according to the requirements of the Ordinance;
 - b. The building owner who is responsible for the appointment of an Engineer to carry out the inspection and;
 - c. The engineer who is appointed to inspect the building.

2. INTERPRETATION

- 2.1 *Owner* in relation to a building exceeding five storeys include:-
 - (a) the management corporation having control of the building; or
 - (b) the person receiving any rent or charge for the maintenance of the common property of the subdivided building.
- 2.2 *Engineer* means a person who is registered as a professional engineer under the Registration of Engineers Act 1967, Act 138

3. BUILDING TO BE INSPECTED

3.1 The requirement for inspection is provided under Section 27B of the Building Ordinance 1994. This section shall apply to a building exceeding five storeys. Any storey of building which is at level lower than the ground storey shall be deemed to be a storey

3.2 A building which is physically connected with another building:

- a. shall, although so connected, be treated as a separate building if it so constructed as to be capable of remaining in position and being used independently of the other building or which require only minor modification as to render it so capable; and
- b. shall be treated as a separate building if it is merely so connected with the other building at or below ground level or by means of a bridge of similar structure. It is therefore acceptable for two separate buildings within the same development to be inspected separately if they have been issued the certificate of fitness of occupation at different times.

4 PERIOD OF INSPECTION

4.1 The local authority shall by notice in writing serve on the owner of a building require the building to be inspected:

- a after the tenth year commencing from the date the first occupation permit was issued in respect of the building; and
- b thereafter at intervals of not more than 10 years from the date of the completion of the last inspection of the building

4.2 The owner may, and in fact should, initiate inspections at shorter intervals if the conditions of the building suggest that this would be advisable. The owner should inform the local authority of such intention so that the reports of such inspections may be considered

for acceptance under Section 27B if the inspection is carried out in accordance to the prescribed manner in the Ordinance.

5. NOTICE TO OWNER TO CARRY OUT INSPECTION

- 5.1 The notice served on the owner of a building to be inspected shall be as in the form in Appendix F.
- 5.2 In case where there is no management corporation and the units in a building are owned separately by individual owners, the local authority shall send separate notices to the individual owners. As the Ordinance requires the entire building to be inspected as a whole rather than in parts, these individual owners are advised to liaise among themselves to appoint one engineer for the inspection of the whole building and submit a joint report to the local authority
- 5.3 In case where the strata titles have not been issued, the local authority shall send the notices to the developer of the building.
- 5.4 Every owner of a building to which this section applies, shall, on receipt of a notice under subsection (2) Section 27B of the Ordinance cause the building to be inspection by an engineer within the time specified in the notice.
- 5.5 If the notice under subsection (2) Section 27B of the Ordinance is not complied with, the local authority may –
 - (a) inspect or caused to be inspected the building and the surrounding by an engineer appointed by the local authority; and
 - (b) recover all expenses reasonably incurred by the local authority in the exercise of its powers under this subsection from the owner of the building as provided for in subsection (4), Section 27B of the Ordinance

6. APPOINTMENT OF ENGINEER

- 6.1 The owner of a building and its surrounding on whom a notice is service shall –

- a within 60 days of the date of the notice, or such period as the local authority may specify, appoint an engineer to inspect the building; and
- b. notify the local authority of such appointment within 14 days thereof. This notification shall be accompanied by a confirmation signed by the engineer of his appointment to inspect the building. Sample of the appointment notification is given in Appendix G.

6.2 If the owner is unable to appoint an engineer within the time specified in the notice, the owner shall notify the local authority in writing seeking approval for a reasonable extension, stating the reasons.

If the owner has not appointed any engineer after the extension period the authority shall appoint any engineer for the said purpose and recover the cost for the inspection from the owner.

7. INDEPENDENCE OF ENGINEER

7.1 An engineer shall not be appointed by the local authority or owner of a building for the purpose of carrying out an inspection of a building under Section 27B if the engineer has any professional or financial interest in the building.

7.2 An engineer shall be regarded as having a professional or financial interest in any building if-

- a he has been responsible for the design or construction of the building or any part thereof;
- b he or any nominee of his is a member, officer or employee of a company or body which has a professional or financial interest in the building or any part thereof;
- c he is a partner or is in the employment of a person who has a professional or financial interest in the building or any part thereof;

- d he holds any interest in the building or any part thereof;
- e a person shall be treated as having a professional interest in the building even if he has interest only as trustee for the benefit of some other person; and
- f in the case of married people living together, the interest of one spouse shall, if known to the other be deemed to be also an interest of the other.

8. DUTIES OF AN ENGINEER

8.1 An engineer appointed to carry out an inspection of a building shall:

- a carry out the inspection in a manner prescribed under the Guidelines herein;
- b on completion of the inspection, prepare and sign a report of the result of the inspection; and
- c serve a copy of the report on the local authority within such period as the local authority may specify in the notice.

8.2 It is to be noted that the engineer who is appointed by the building owner is fully responsible for the inspection. He shall, with reasonable diligence, take an active and personal interest in the inspection of the building. A situation where he totally delegates the inspection work to an another person or his assistants on site is not acceptable

8.3 The engineer who is appointed by the owner of a building or the local authority to carry out an inspection of a building shall be entitled at all reasonable times to full and free access to the building and any part thereof he is required to inspect according to section 27B of the Ordinance. Any person, who at any time hinders, obstructs or delays the engineer in the performance and execution of his duty or of anything which he is respectively required to do shall be guilty of an offence.

9 MANNER OF INSPECTION OF BUILDING UNDER THE ORDINANCE

9.1 The inspection of a building may consist of one or both of the followings:

- i Visual inspection
- ii Full structural investigation

9.2 On receipt of the notice from the local authority, the building owner is required to appoint an engineer to carry out the visual inspection as the first stage. The necessity of the full structural investigation will depend on the type, extent and seriousness of the defects, deformation and deterioration in the structure found by the engineer in the visual inspection

9.3 An engineer carrying on an inspection under this section shall inspect the building in the manner prescribed in section 27B of the Ordinance which shall take into consideration the following:

- a. A visual inspection of the building, including a visual survey of the condition of the building, its structural elements and any addition or alteration to the building and its structural elements;
- b. A visual inspection of the surrounding areas including the slopes and drainage system and any alteration to the slope retaining structures;
- c. the preparation and submission to the local authority of a report of the result of the visual inspection under paragraph (a);
- d. if, having regard to the results of the visual inspection under paragraph (a), the engineer reasonably suspects or is of the opinion that there are defects, deformations or deterioration in the building and its structural elements that will or are likely to endanger or reduce the structural stability or integrity of any part of the building, he shall request for permission from the Chief Inspector of Buildings, through the local authority to carry out a full structural investigation, including investigation in respects of its structural elements;

- e. if the Chief Inspector of Buildings after considering the requests of the engineer, authorize the engineer to carry out a full structural investigation which shall include the following:
 - i. taking all reasonable steps in obtaining information relating to the design, construction, maintenance and history of the building;
 - ii. with reasonable diligence checking the structural plans of the building and the calculation therein or if the plans are not available reconstruct such structural plans where the local authority so requires, with a view to determining any inadequacy in the structural elements of the building;
 - iii. carrying out or causing to be carried out tests on the structural elements of the building with reasonable care so as not to damage any part thereof;
 - iv. carrying out or causing to be carried out tests on the material used in the construction of the buildings; and;
 - v. carrying out or causing to be carried out tests on such part of the building as the engineer considered necessary;

- f. the engineer shall then prepare and submit to the local authority a report of the results of the full structural investigation carried out under paragraph (d) together with his recommendations.

10. REPORT OF THE RESULTS OF AN INSPECTION

10.1 A report of the results of an inspection of a building shall comprise:

- a. detailed description of the visual inspection and any full structural investigation of the building conducted by the engineer;

- b. analysis of observations and tests conducted in the course of any full structural investigation of the building; and
 - c. recommendations by the engineer as to such remedial works as are necessary to ensure the structural stability or integrity of the building.
- 10.2 The local authority may, if it is satisfied after evaluating the inspection report submitted under subsection 5(b) of the full structural investigation report and recommendations of the engineer submitted under subsection 5(e), as the case may be-
- (a) accept it in full;
 - (b) reject it
 - (c) accept part of it; or
 - (d) obtain a second opinion on it with the concurrence of the Chief Inspector of Buildings
- 10.3 The local authority shall thereafter-
- (a) issue an order to the owner of the building to take the appropriate measures to rectify or remedy any defect, deformation or deterioration as recommended by the engineer within such period as the local authority may specify; or
 - (b) issue an order to the owner of the building for closure and demolition of the building

11 IMPLEMENTATION OF REPAIR WORK

Major repair and strengthening work, where necessary, shall be treated as building works. Examples includes replacement of corroded reinforcement bars, reconstruction of main water tank and underpinning works are considered as major

works. As such all relevant application for approval of plans, permit to carry out building works and supervision of building works shall apply.

Minor repairs can be treated as routine maintenance and will not require plan submission or permit application

12 CONCLUSION

Owner should regard maintenance of building structure as an important routine and should have resources and well planned maintenance programmes which are implemented throughout the life span of the buildings.

It is also very important for the engineers, who are appointed to take on such periodical inspections, to carry out their duties in a responsible and professional manner.

