4.2.1 Guidelines

(a) Individual Owners

- (i) When an individual owner receives a statutory order, he should read its contents carefully.
- (ii) If the owner is in doubt of the works required to be carried out, he should seek clarification from the case officer of the relevant Government Departments. The name and telephone number of the case officer should either be indicated on the covering letter or the order.
- (iii) For extensive or complicated works, the owner is strongly recommended to appoint a building professional/specialist to advise on the necessary works required and to supervise such works even though such appointment might not be mandatory.

(b) Owners' Corporation

- (i) When the Owners' Corporation (OC) receives an order from a Government Department, the chairman should arrange a series of meetings with the owners to discuss and agree on the following items:
- Schedule of works. The requisite repair works should have priority over other works relating to general upgrading and maintenance of the building. The expiry date of the order should be taken into account in programming the works.
- Appointment of a building professional to prepare the necessary remedial proposal, provide cost estimates, advise on the employment of a registered contractor, and co-ordinate and supervise the works. Section 4.3.4 of this Chapter provides a detailed description on its implementation.
- Appointment of suitably licenced or registered contractors to carry out the necessary repair and remedial works through appropriate procedures in accordance with Section 4.3.5 of this Chapter.



4.2.1(b) Owners' Corporation (continues)

- Method of apportioning costs amongst co-owners. For this purpose, the
 provisions in the Deed of Mutual Covenant (DMC) should take precedence.
 In some buildings where there is no DMC, the apportionment should be
 based on the proportion of the owners' shares in the building, either by
 prior agreement or by proportion of floor areas and ratable value of the
 property.
- Timing and method of collection of the apportioned costs from the coowners to finance the project.
- Method of managing the works program. It is advisable to set up a special committee with experienced members and/or appoint a Project Consultant.
- (ii) Upon completion of the works, the building professional appointed shall submit his certification of completion to the OC and inform the relevant Departments.
- (iii) The OC can always approach relevant Government Departments and the District Offices concerned for advice on compliance with an order.

(c) Co-owners

- (i) Where a statutory order is served on the co-owners of a building, each owner on the list will be responsible for complying with the order. They may consider setting up an Owners' Corporation (OC) to be incorporated under Buildings Management Ordinance, Chapter 344 as soon as practicable. Co-owners can approach the District Offices for assistance on the establishment of an Owners' Corporation, or other owners' organizations or make reference to booklet "How to Form an Owners' Corporation and Achieve Effective Building Management" published by the Home Affairs Department (HAD). Section 4.6 of this Chapter provides details on the formation of OC.
- (ii) If certain urgent works need to be carried out at once to remove immediate dangers, such works may have to be carried out before the formation of OC, Co-owners should seek advice from building professionals or relevant Government Departments in this regard.
- (iii) If an OC cannot be formed, procedures and steps similar to Section 4.2.1(b) above should be adopted except that some representatives or an Owners' Committee should be elected to deal with the matters.

4.2.2 Orders from the Buildings Department

The following lists out the steps to be taken for complying with orders issued by the Buildings Department (BD).

(a) Unauthorized Building Works - Removal Order under Section 24 of Buildings Ordinance

- (i) If owners are in doubt on the approved layout of the premises before the carrying out of the UBW, they may apply for viewing the approved plans in the BD.
- (ii) If considered necessary, owners may clarify the contents of the order with the case officer as indicated on the cover letter.



- (iii) In order that the required removal works can be carried out safely, owners should ensure the contractor they have selected observes the requirements contained in:
- "Guidelines for the Removal of Typical Unauthorized Buildings Works and General Maintenance of External Walls" (Appendix 11) on safety measures regarding external works and
- "Asbestos Removal of Unauthorized Building Works" (Appendix 14).
- (iv) If the removal and reinstatement works are substantial or involve structural works, the BD may require owners to engage an Authorized Person (AP) in preparing remedial proposals and supervision of works. Registered Contractors should also be engaged to execute the works under the supervision of the AP.
- (v) After the completion of the removal and reinstatement works, owners or the AP should report to the BD for arranging a compliance inspection and subsequent issuance of compliance letter.

4.2.2 Orders from the Buildings Department (continues)

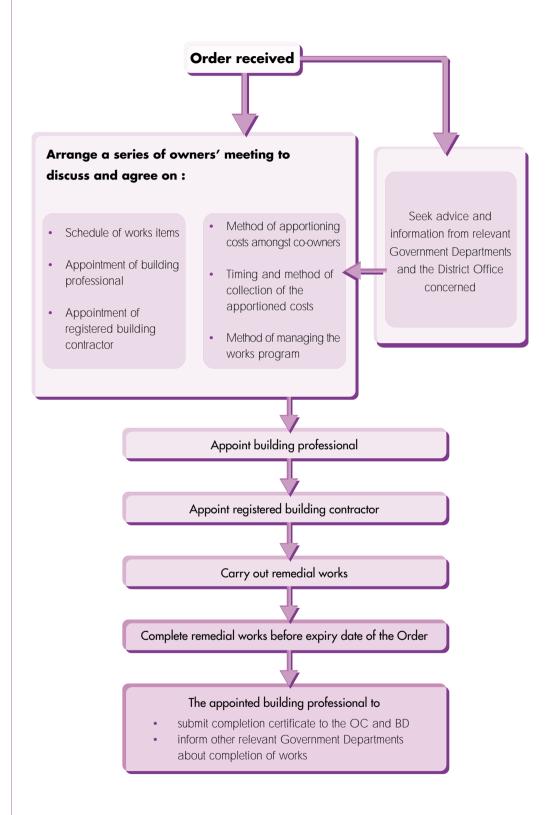
(b) Building or Drainage Works - Investigation Order under Section 26A or 28 of Buildings Ordinance

- (i) For investigation of dilapidated building or drainage works, an Authorized Person (AP) should be appointed to coordinate and carry out the investigation on the structural conditions and defects of the building or drainage system.
- (ii) The AP would submit to the BD an assessment report on the conditions of the building. He may include in his report the necessary remedial proposals for the approval of the Building Authority.
- (iii) If the proposed remedial works are approved, the BD may instruct the execution of the works through a letter or an order depending on the circumstances.

(c) Building or Drainage Works - Repair Order under Section 26 or 28 of Buildings Ordinance

- (i) The BD might require the appointment of an Authorized Person (AP) to coordinate and carry out the investigation on building and/or drainage system. (Usually required in large scale repair.)
- (ii) The AP might be required to submit remedial proposals for the approval of the BD.
- (iii) Owners should appoint contractors to carry out the remedial works. (For structural works, registered contractors are required.)
- (iv) The owners or AP should report the completion of remedial works to the BD for arranging a compliance inspection and subsequent issuance of compliance letter.

Procedures for Owners' Corporation to Comply with Statutory Order



4.2.2 Orders from the Buildings Department (continues)

(d) Dangerous Hillside - Investigation and Repair Order under Section 27A of Buildings Ordinance

- (i) Subject to the requirements specified on the order, an Authorized Person (AP), a Registered Structural Engineer (RSE) or a Registered Geotechnical Engineer (RGE) or any combination of them should be appointed by the owners to carry out the investigation.
- (ii) After the investigation, the AP/RSE/RGE should submit remedial proposals for the approval of the Building Authority.
- (iii) Based on the advice from the AP/RSE/RGE, a registered specialist contractor in the site formation works category or other appropriate categories should be appointed to carry out the remedial works under the supervision of the AP/RSE/RGE.
- (iv) After the completion of the remedial works, the AP/RSE/RGE should report the completion of remedial works to the Buildings Department (BD).
- (v) Appendix 7 provides further information on this subject.



(e) Buried Services - Investigation and Repair Order under Section 27 C of Buildings Ordinance

- (i) Defective water carrying buried services can cause settlement and even landslide. Water leaking into the subsoil washes away the soil particles subsequently changes the soil characteristics and creates hazards.
- (ii) An Authorized Person (AP) should always be appointed to coordinate the required works. A Registered Geotechnical Engineer, if necessary, should also be appointed to carry out the investigation.
- (iii) After the investigation, the AP should submit remedial proposals for the approval of the Building Authority.
- (iv) In the event that excavation to expose the pipeworks for repair is required, appropriate registered contractors should be appointed based on advice from the AP.
- (v) The AP should report the completion of remedial works to the BD for arranging a compliance inspection and subsequent issuance of compliance letter.

(vi) Readers should refer to the guidelines published by the Civil Engineering Department and Works Bureau on investigation and repair of buried water-carrying services as mentioned in Appendix 7 which also provides further information on this subject.

(f) Fire Safety Improvement Direction - by the Buildings Department and Fire Services Department under the Fire Safety (Commercial Premises) Ordinance (Chapter 502)

(i) Owners should appoint an Authorized Person (AP) to coordinate and carry out an investigation of the building.

(ii) The AP should then submit improvement proposals for the approval of the Building Authority. If building works are required, a registered contractor in the appropriate category should be appointed to carry out the building works as per the advice of the AP.





- (iii) A Registered Fire Service Installation Contractor is also required to submit improvement proposal(s) for the approval of the Fire Services Department and carry out the improvement works on the existing fire service installations.
- (iv) The AP should report the completion of improvement works to the Buildings Department and Fire Services Department.

(g) Large Scale Operations - "Blitz" and "Co-ordinated Maintenance of Buildings Scheme" (CMBS)

Maintaining buildings in safe conditions and removal of unauthorized building works (UBW) are responsibilities of building owners. In order to facilitate and expedite building owners' compliance with requirements, the BD has from time to time organized large-scale operations such as "Blitz" and "CMBS".

4.2.2(g) Large Scale Operations (continues)

(i) Removal of UBW - Blitz

Owners with UBW in their premises and even the OC with UBW in the common areas may be served with orders for their removal. It would be more cost effective and convenient if the affected owners and OC can jointly engage building professionals and contractor in the UBW removal, reinstatement, repair or even improvement works together under a single works contract.

(ii) Building Maintenance - Coordinated Maintenance of Buildings Scheme (CMBS)



4.2.3 Orders from Other Government Departments

(a) Water Supplies Department (WSD) - Notice served by Water Authority under Section 16 of Waterworks Ordinance for Waterworks

Owners should appoint a licensed plumber to submit the repair or remedial proposals and carry out the necessary waterworks.

- (b) Environmental Protection Department (EPD) Notice served under Section 3 of Water Pollution Control Ordinance for Drainage System
 - (i) Owners should appoint an Authorized Person (AP) and/or environmental consultant to submit remedial proposal to the Buildings Department and/or Drainage Services Department for approval;
 - (ii) A competent contractor, or a registered contractor if building works are involved, should be appointed to carry out the works;
 - (iii) Owners should obtain an acknowledgment of completion of the drainage works from the BD.
 - (iv) Owners or AP should report to the Environmental Protection Department for the completion of the works.

(c) Fire Services Department (FSD) - Fire Hazard Abatement Notice

Owners should remove the stated fire hazard within the period as specified in the Notice and prevent recurrence of such as obstructions to exit routes.

(d) Electrical and Mechanical Services Department (EMSD)

Notice to provide Periodic Test Certificate served under Electricity Ordinance (Chapter 406), commonly known as Form WR2.

- (i) Owners or the OC is required to engage a licenced electrician to test, check and rectify defects in the electricity installation.
- (ii) Upon completion of the testing and checking (may be with subsequent repair, if required), notice in the specified form by the licenced electrician should be submitted to EMSD.



For residential buildings having a supply of 100A or more, the checking and testing have to be carried out every five years. The capacity of the supply is usually indicated on the main switch box inside the premises.

4.3 Carrying out Repair & Maintenance Works

4.3.1 Fundamentals

Advance and detailed planning are essential for the carrying out of works involving maintenance, repair, renovation, or alteration and addition. Assistance or advice from building professionals such as Authorized Persons and the selection of contractors with good reputation and appropriate experience for the works are also vital for quality results.

The procedures and considerations suggested in this section set out principles for maintenance and renovation works. They can be modified or simplified to cater for different situations encountered by readers.

4.3.2 Project Planning and Financing

(a) Formation of Project Steering Committee

The planning, preparation, and overseeing of the implementation processes of maintenance works should be taken up by a working committee consisting of owners or their representatives preferably with experience in this field. This "Project Steering Committee" can be formed by owners in a building with or without Owners' Corporation (OC). To facilitate daily operation by the committee, it should be empowered by the owners to make decisions on issues of routine nature. However, the consent from the majority of owners should be obtained on major issues including:

- selecting the priority of repair items
- selecting materials
- budgeting and raising funds
- engaging consultants and contractors
- award of contracts
- monitoring progress and payments, and
- determining major issues e.g. variations, etc.

Section 4.6 of this Chapter as well as Appendix 18 give more details on the formation of OC.

(b) Planning in Advance

Although some repair and maintenance works may arise from emergencies, accidents or changing needs, a long-term maintenance plan would always help in financial planning, budgetary control and also minimize disputes among owners. Section 4.4 of this Chapter provides more details on this subject.

Short notices to building owners to raise fund for major maintenance works usually create conflicts. Advance consultation with owners should be regarded as a standard procedure for implementing large scale repairs or upgrading works. It will give owners more time to prepare for the financial commitment and understand the needs and solutions.

To help alleviate the financial burden on owners, the amount for an one-time contribution may be reduced by a subsidy from the central management reserve. The Building Management is advised to include in the monthly management fee a certain amount of reserve for this purpose or other contingency uses.

The Buildings Department operates a "Building Safety Loan Scheme" which offers loans to owners lacking cash in hand to finance the required works for improving building safety. Works to be carried out should be in the approved list and the loans can be repaid to the Government in installments at a low interest rate. Section 5.2.1 (c) and Appendix 6 provide more details on this subject.



4.3.3 Insurance, Precautionary and Safety Measures

(a) Insurance

Insurance policies should be taken out before the commencement of works.

All works contracts should be covered by sufficient insurance on "Contractor's All Risks" with third party indemnity.

Contractors should have their own employees' compensation insurance.

The owners should have their own insurance on properties and, if applicable, employee compensation insurance on their personnel responsible to supervise the works should also be taken out.

(b) Precautionary Measures

All precautionary and protective measures should be completed before the commencement of

works.

Special attention should be paid to the scaffolding. They should be specified with construction details to inhibit climbing by children and deter burglary.

Open parking lots and passageways affected by the works should be protected from falling objects by installation of screens or covered walkways. The protective measures should be appropriate and compatible to the nature of works.

In case of works involving temporary removal of lift doors, the lift shaft openings should be properly protected against the danger of falling and, more importantly, the spread of fire.



Transportation of materials and debris should be designated and properly specified. Extreme care must be exercised not to allow overloading of any structure or device such as lifts to avoid sudden collapse. In case the use of the passenger lifts is required for the works, the lift car finishes should be properly protected. The use must also be supervised by qualified personnel to avoid overloading.



4.3.3(b) Precautionary Measures (continues)

For structural repair works, temporary supports for maintaining the structural integrity of the affected areas e.g. suitable props and bracing might have

to be installed. In simple terms, repair made to rectify cracks in beams, large areas of ceiling, corners of columns, driveways and carparking floors, water tanks, etc., can be regarded as structural repairs.



(c) Fire Safety Measures

During the carrying out of renovation or maintenance works, fire hazards to buildings must be eliminated for safety reasons. Previous tragic incidents are no strangers to readers. A suggested checklist is:



Fire service installations should be kept in good working order at all stages of the works. In case of major works to be carried out to the internal common parts of the building, the existing fire service installations e.g. fire hydrant and hose reel, fire alarm, sprinkler system, etc, should be checked to ensure that they function properly prior to the commencement of the works.

Fire-resisting doors should not be left opened or missing. Replacement of fire doors, if necessary, should be done as quickly as possible to minimize the number of vulnerable points and the duration of such possible risks.

Staircases and means of escape should be maintained in proper conditions at all times, including the lighting, the effective widths and heights. No flammable items, building materials, rubbish or debris should be stored.

Lift shaft openings with lift doors removed should always be sealed with fire-resistant boarding to prevent the spread of smoke and fire. Lift well should not be used for storage of building debris or rubbish. Activities with high fire hazard such as welding should be avoided in lift shafts.

4.3.4 Appointment of Building Professionals

(a) Statutory Requirements

(i) Engagement of suitable building professionals

Engagement of Authorized Persons (AP) would be necessary in the following situations:

- when required by statutory orders;
- when the works require prior approval and consent from the Building Authority; and
- the major repair or reinstatement of exit routes, approved layouts, common areas or the whole building are involved. Apart from the AP, the coordinator and supervisor should also have sufficient knowledge on the statutory requirements.

For other maintenance works, it is always advisable to engage a building professional.

(ii) Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers

Authorized Persons (AP) are qualified building professionals registered and recognized by the Building Authority to undertake the responsibilities and procedures laid down under the Buildings Ordinance. By Law, any person, who wants to erect a new building or initiate building works or alterations and additions, must appoint an AP to submit plans for approval, to co-ordinate the whole project, to work with other professionals such as Registered Structural Engineer (RSE) and Registered Geotechnical Engineer (RGE) to supervise the work and to certify completion.

(iii) Register of AP/RSE/RGE

An Authorized Person may be an architect, a structural engineer or a surveyor by profession. The Buildings Department (BD) keeps an up-to-date list of AP, RSE & RGE. The list is available at the BD's office and the BD web site www.bd.gov.hk. For AP, RSE & RGE who have previously indicated to the BD that they would like to offer professional services to the private sector on building safety aspects, there will be an "1, 2, 3 & 4" indicated alongside their names in the list and their contact telephone numbers published.



4.3.4(a) Statutory Requirements (continues)

(iv) Building professionals

Building owners may also check with the relevant professional institutions for their updated list of qualified members. Not all qualified building professionals are registered as AP or RSE.

(v) Professional firms

Professional registration and qualification is on the basis of individuals. But practices are usually in the form of incorporations. In the selection process, readers should take into account whether an individual professional would be backed up by the professional firms he works for so that there could be better support in resources. The engagement of individuals working on part-time basis without the support of a proper professional firm should be carefully considered.

(b) Selection Process

This section provides some useful guidelines in the selection of AP, RSE or building professionals for different purposes.

(i) Stage 1 - Comprehensive condition survey

Quotation vs Comprehensive Condition Survey

Understanding the current conditions of a building is the first step to grasp the extent of the problem. Merely obtaining a quotation from a contractor for reference without a proper survey is not sufficient for the purpose. Neither could the quotation be used as a fair tender document later on. A survey by AP, RSE or building professionals is necessary.

Selection of professionals

OC can approach a number of AP or RSE from the list as mentioned in section 4.3.4 (a) (iii) of this chapter and invite 3 to 5 professional consultancy proposals. The owners may then make a decision based upon relevant



xperience in this type of work, their ob reference, their professional fees, nd the time required to complete ne job. Referees of jobs quoted in ne resume of the professionals may rovide useful information on their past reformances.



For the purpose of inviting AP or other building professionals to carry out a comprehensive condition survey as a Stage 1 service for the owners, a sample of "Invitation Letter for Submission of Fee Proposal for Comprehensive Condition Survey" is provided at Appendix 22.

Comprehensive condition survey report

The comprehensive condition survey would give the owners a better picture on the defects found in common areas, external walls, roof, building services, etc. The AP, RSE or building professional might suggest the corresponding and other repair works and give a rough budgetary estimate for the proposed works.

The report of the survey should cover the conditions of the building with list of defects to be rectified and the priority in carrying out the corresponding rectification works. An estimation on the cost of repair for each item should also be given to facilitate decision-making. If the works are to be executed, the need to engage professionals such as architects, structural engineers, surveyors, building services engineers, landscape architects, Authorized Persons or Registered Structural Engineers should also be analyzed.

Decision making on the Scope of Works

After the completion of the survey report, the OC may conduct meetings to discuss the needs for repair and improvement works. If such works are required, OC may proceed to Stage 2 as described below.

The scope of works as recommended by the building professionals and/or, AP/RSE should be considered by the OC. It is important that works relating to building safety should not be omitted or delayed for safety reason. In fact, OC may consider upgrading work to be carried out together with the basic maintenance.

(ii) Stage 2 - Works

Appointment of Project Consultant

The first step in Stage 2 is to appoint an AP or building professional as the Project Consultant to take charge of all the design, tendering, organization and supervision of the maintenance and/or improvement works.

Although both Stage 1 and 2 involve professional services, the shortlisting or selection process could be independent. It is not until a comprehensive report on the conditions of the building is available and the OC agrees to the extent of works to be carried out that the scope of the professional service in Stage 2 can be defined. The professional carrying out the survey in Stage 1 may not necessarily be selected for the Stage 2 service.



4.3.4(b) Selection Process (continues)

If a large contract sum is expected, competitive tendering for Stage 2 service is strongly recommended, i.e., 5 to 8 professional firms should be invited to tender for the Stage 2 services. A sample of the invitation letter for the Stage 2 services is shown at Appendix 23 for reference.

Appendix 21 gives an indication of the professional fees likely to be charged by an AP or building professional.

In case where a well-established property management consultant company supported by professional employees has already taken up the management services of the building, it may be advisable to appoint the management company as the Project Manager at a fee. This would release the pressure on the OC or the Project Steering Committee who may not afford the time and expertise to supervise the Project Consultant and contractor. Furthermore, the management company, being well acquainted with the subject building through daily management, can usually direct suitable focus on certain aspects of the works.

(iii) Terms

A Project Consultant employed by the OC is responsible in the planning, control, contract administration and supervision of the required works. He is usually an AP, RSE or building professional.

A Project Manager usually refers to the person employed by the client and, in this context, the OC to act on its behalf in supervising the performance of the Project Consultant and contractor. He is usually a building professional.

Although the above definitions on Project Manager and Project Consultant are commonly adopted in the building industry, they are not authoritative definitions. For example, apart from site agents, contractors may have their own Project Managers to deal with the OC and the Project Consultant; sometimes the Project Consultant is also called Project Manager or even Contract Manager.



(iv) Number of consultants to be invited to tender

The minimum number of tenderers to be invited mentioned in item (i) and (ii) above is based on the statutory requirements of the Building Management Ordinance (BMO). It is quite common that the Stage 1 service fee mentioned above falls within the range of HK\$10,000 to HK\$100,000. Under such circumstances, the BMO requires a minimum of 3 tenders.

The fee scale of Stage 2 is usually higher than HK\$100,000 and therefore a minimum of 5 tenders are required. It is a good practice to carry out a detailed pre-qualification check for inclusion into the tenderers' list. Inviting more than the recommended maximum number of tenderers might mean more work on tender analysis and less environmentally friendly because of the bulk of paper used especially if electronic format is not adopted.

(c) Scope of Services by Project Consultant

(i) Duties of a Project Consultant

The Project Consultant, assisted by other professionals, if necessary, would normally carry out the following duties commencing from Stage 2:

- meet with the owners for giving professional advice, obtaining instructions and facilitating decisions;
- liaise with relevant Government Departments for complying with statutory requirements;
- prepare tender documents including drawings, specification of works;
- assist in formulating the list of tenderers;
- responsible for tendering procedures;
- analyze tenders and prepare report with recommendations;
- award of contract on behalf of the OC;
- supervise the progress and quality of the works;



4.3.4(c) Scope of Services by Project Consultant (continues)

- administer the contract;
- certify stage completion of works, interim payments and claims from the contractor; and
- certify completion, and monitor defect rectification, etc.

(ii) Other Building Professionals

When the maintenance works involve specialized works, upgrading or improvement works, then the OC may have to engage professionals of appropriate disciplines to assist the Project Consultant for assuring quality. Examples are:

- Registered Structural Engineer (RSE) for major structural repairs or new additions of structures;
- Registered Geotechnical Engineer (RGE) to deal with problems relating to slope or retaining structures and geotechnical elements of building works, etc.
- Quantity Surveyor for complex and large scale maintenance works;
- **Building Services Engineer** for major works in air conditioning, fire service installations or lift repairs; or

They may either be included under the consultant's service or separately employed by the OC by independent agreements. Their appointment should be considered at the end of Stage 1 when owners have received the report on the conditions of the building and recommendations from the building professional on the scope of works and the need of further professional engagement.

(iii) Specialist Consultants

Specialists like termite and pest control consultants, underground drain survey specialists, asbestos consultants, swimming pool design consultants, etc., may also be required.



4.3.5 Appointment of Contractors

Contractors are the parties to execute the works. A competent contractor regulates himself in employing skilled workers and qualified supervisors for **continuous supervision** assuring quality works. Project Consultant can usually offer **regular and periodic supervision**. The most they can do in dealing with consistently non-performing contractors is to reveal the problem at an early stage and recommend termination of the works contract. Readers should therefore always be cautious and give detailed consideration in selecting contractors for the works.

(a) Statutory Requirements

(i) Registered Contractors under Buildings Ordinance

In carrying out maintenance works, the engagement of a Registered General Building Contractor (RGBC) would be required under most circumstances, particularly when dealing with approved works, structural works and large-scale maintenance works. The Building Authority under the Buildings Ordinance maintains registers on the Registered General Building Contractors and other Registered Specialist Contractors for different categories of specialized works. Contractors have to meet established standards and assessed by the registration committee before they can be considered for inclusion in the relevant registers. Registered contractors who expressed interest in carrying out works in relation to building safety are marked with an "*" on the list published on the BD web site: www.info.gov.hk/bd.

(ii) Other Registered or Licensed Contractors

Plumbing, electrical and fire service installation works all require licensed or registered contractors under the Water Supplies Department, Fire Services Department and Electrical & Mechanical Services Department respectively to carry out.

(b) Shortlisting of Tenderers

Works contracts usually involve large sums of money and could easily become subjects of claims, disputes and even lawsuits. Selection of an experienced and competent contractor under the supervision of an independent building professional help facilitate a smooth progress to complete the contract successfully.



4.3.5(b) Shortlisting of Tenderers (continues)

The exercise of compiling the list of tenderers for the works is the first and most important step. Only competent contractors should be included. Unscrupulous contractors can do the tricks by submitting an extremely low price to procure the contract and then purposely look for variations at the works stage to make up the loss, thus causing a lot of disputes and delays later on.

(i) Shortlisting criteria

Past experience and records of performance of the contractor should be given due weight in shortlisting. Apart from the reference letters given by the clients of the contractors of similar works, the OC or the Project Consultant should discuss with the referees for a better understanding in this regard.

Adequacy of management structure and financial situations should also be taken into account. Contractors with experienced building professionals employed as supervisors will certainly communicate more easily with the Project Consultant and the OC.

Labour safety records of the tenderers should also be considered. Bad safety records reflect the bad management of the contractor in safety aspect which may impose unnecessary liability on the OC and inevitably delay the completion significantly.

Do not include any contractor in the list of tenderers if its performance is in doubt.

(ii) Pre-qualification exercise

Pre-qualification is a preliminary exercise conducted by the Project Consultant to set minimum qualifying requirements for any party interested in submitting a tender. Those requirements can include the past experience, job reference, previous employers' recommendations, size, capability and financial strength. This exercise may also include the discussion with referees and an interview with the interested contractors.

Readers should bear in mind that by shortlisting a contractor in the list of tenderers, the OC has indirectly implied that the contractor is considered capable and suitable to carry the works subject to the tender sum.



(iii) Deposits

It is not worthwhile to impose non-refundable deposits from tenderers as this practice may deter good contractors from submitting a bid for the job.

(c) Selection Methods

(i) Common selection methods

There are several methods to procure a works contract. The more commonly adopted ones are open tender, selective tender and negotiated tender.

Open tender

Usually an advertisement is put up to invite publicly for an expression of interest to submit a tender. The difficulties to predict the number of respondents add uncertainty to the work flow. If there are many interested tenderers, an enormous waste of vetting efforts by the Project Consultant and resources in preparation of tender documents and to check the quality of the tenderers is expected.

Selective tender

Invitations are sent to a selected list of tenderers formulated by pre-qualification, recommendations through building professionals and other building owners, etc. It is advisable to include in the list only those who are interested and those OC is prepared to accept. Unnecessarily long list of tenderers will indirectly affect the quality of the submitted tender. OC is therefore, where competition is required, recommended to adopt selective rather than open tendering with the maximum number of tenderers limited to five or six.

Negotiation

If only minor repair works are involved and the owners know some good contractors, selection of the contractor by negotiation may be a relatively simple solution. However, this method is usually not recommended for large-scale maintenance works of multi-ownership buildings because it is not considered as a fair process and may easily attract complaint on bribery.

4.3.5(c) Selection Methods (continues)

(ii) Package Deal

"Package deal" usually refers to the kind of contract which the contractor provides the full scope of works including that of the Project Consultant. OC will find this kind of arrangement more convenient with less party to deal with in the process. However, the Project Consultant being under the control of the contractor cannot become an independent party to act impartially on behalf of the owners for supervising the contractor. If the package deal is offered by the Project Consultant, there is also a conflict of interest between the consultant and the contractor which may prevent the consultant from making a fair assessment on the performance of the contractor.

Package deal is more suitable for extremely specialized works where the Project Consultant's involvement is minimal.

4.3.6 Tendering

(a) Tender Documents

Tender documents should consist of the following:

- A schedule of works;
- General and particular specifications;
- Terms & conditions of Contract;
- Form of tender;
- Drawings on floors, elevations, sections, and details for the intended works;
- Criteria of acceptance of tender;
- Terms of payments;
- Delay liabilities and Liquidated Damages;
- Warranties; and
- Defects liability period.



Some forms of standard documents covering most of the details are provided at Appendix 20 of this Guidebook.

(b) Quantities of Works

The exact quantities of the required works may not be able to be indicated in the schedule of works or drawings by the Stage 1 survey. For example, the extent of loose tiles to be replaced cannot be revealed until all the loose finishes have been hacked off by the contractor. The schedule of rates is therefore important as the basis for arriving at the cost of the actual works done according to the final measurement of the extent of works.

On the other hand, if total replacement of finishes and fittings are specified instead of replacing only a defective portion, a more realistic price can be obtained through tendering. OC should balance the pros and cons of total replacement, taking into consideration of the advice from the Project Consultant. Although some parts of the existing finishes may still appear acceptable, they might have already reached the end of their life cycle, judging from the extensiveness of the defective areas and nature of the defects.

(c) Tendering Procedure

Normal tendering procedure includes the following steps:

- invitations to tender;
- distribution of tender documents;
- tender return and opening;
- tender analysis by Project Consultant;
- recommendation by Project Consultant and decision by OC; and
- award of contract.

4.3 Carrying out Repair & Maintenance Works

Tendering Procedure

1. Prepare tender documents

- schedule of works
- general specifications
- particular specifications
- terms & conditions of Contract
- form of tender

- floor plans
- elevations
- sections
- details for the intended works, etc.

2. Select tender methods

Open Tender

Selective Tender

Negotiation

3. Invite tenderers

Estimated Cost of Works

HK\$10,000 ~ HK\$100,000

Over HK\$100,000

Over HK\$200,000 / 45% of the annual budget of the OC, whichever is the less

Minimum No. of Tenders

At least 3 tenders

At least 5 tenders

At least 5 tenders and decision to accept or reject the tenders has to be passed in a general meeting of the OC

4. Collection of tenders

Tenders should be deposited into a double-locked tender box with keys separately held by two members of the management committee

5. Opening of tenders

- as soon as possible after the deadline of submission
- in the presence of at least 3 management committee members
- · sign the tender opening record and against any essential amendments found
- keep tenders in safe custody before tender evaluation
- late tenders should not be accepted

6. Evaluation of tenders

- if the lowest bid is not selected, full written justifications should be recorded for owners' information
- name and tender price of the successful tenderer can be disclosed to all unsuccessful tenderers as a matter of courtesy
- all tender documents, contracts and receipts, etc. should be properly kept for at least 6 years and made available to authorized personnel such as the owners or authorized officers of the Home Affairs Department

7. Notification of the tender result to owners/occupiers



(d) Number of Tenders to be Invited

The estimated cost of the maintenance works should be considered when determining the number of tenders to be invited. Reference should be made to the "Code of Practice on Building Management and Maintenance" published by the Home Affairs Department (HAD).

Estimates	No. of tenders
Between \$10,000 and \$100,000	At least three tenders should be sought
Over \$100,000	At least five tenders should be sought

If the tender price exceeds \$200,000 or 45% of the annual budget of the OC, whichever is the less, the decision to accept or reject the tenders has to be passed in a general meeting of the OC.

(e) Tender Notice

A copy of the invitation to tender should be posted at a prominent location in the building during the tender period.

(f) Tender Record

A record of invitation for tenders and a record of returned tenders should be properly kept on file.

(g) Collection of Tenders

Tenders should be returned to the OC and deposited in a double-locked tender box with keys separately held by two members of the Management Committee.

For small buildings without a proper management office, the tender return time can be limited to say within two hours during which the tender box can be guarded by relevant parties. Alternatively, the tender box can be sited at the Project Consultant's office.

4.3.6 Tendering (continues)

(h) Opening of Tenders

Tenders should be opened as soon as possible after the deadline of submission and in the presence of at least three Management Committee members. These members should sign the tender opening record and against any essential amendments found in the tenders such as the price offered. Tenders should be kept in safe custody pending a meeting of the members of the Project Steering Committee to evaluate the tenders with the Project Consultant. Late tenders, especially after the opening, should not be accepted.

(i) Evaluation of Tenders

Usually the essential parts of the tenders received are passed to the Project Consultant for a detailed analysis and a recommendation which would then report to the OC for a final decision.

Members of the Project Steering Committee should declare to the Secretary of the OC any conflict of interest and withdraw from the evaluation of tenders and future monitoring work. The Secretary would then report the case to the Chairman. The usual but not necessary the recommended practice is to select the lowest bid. If the lowest bid is not selected, full written justifications should be recorded for owners' information.

The name and tender price of the successful tenderer can be disclosed to all unsuccessful tenderers as a matter of courtesy. All tender documents, contracts and receipts, etc., should be properly kept for at least six years and made available for inspection by authorized personnel such as the owners or authorized officers of the Home Affairs Department.

(j) Notification to Owners/Occupiers

Owners/occupiers should be notified in writing of the tender result.

(k) Program

Though the contractor's program may be submitted after the award of the contract. It is more advisable for OC and Project Consultant to consider such before the award of contract so that factors which might be overlooked by the Project Consultant could be rectified at an early stage without contractual obligations.



(I) Contract Period

In preparing the tender documents, the Project Consultant and the OC should carefully discuss and agree the realistic time for the contractor to complete the required works. Specifying an unrealistically short contract period would either boost up the tender price, end up in a lot of disputes or deter responsible contractors to submit a tender.

If the Project Consultant is not too certain about the reasonable time required to complete the works especially when certain specialized works are to be carried out, alternative contract periods can be incorporated for the tenderers to quote prices. The OC and the Project Consultant can then consider whether the additional financial implications are worthwhile against a longer period of works hence the inconvenience caused by the works.

(m) Liquidated Damages

It is common that the contractor has to compensate the OC for loss and damages caused by the delay in the completion of works. A daily rate is usually indicated in the contract. However, if the delay can be justified as genuinely beyond the control of the contractor such as inclement weather, accident, fire, etc, the Project Consultant will issue extension of time certificates for the appropriate durations.

Disputes on this issue are common in the building and maintenance contracts. Readers should adopt the following attitudes to avoid unnecessary disputes or to deal with the issue without prejudice:

- In preparing the tender documents, a reasonable program required for the
 works should be worked out with the Project Consultant. Factors like Chinese
 New Year Holidays, delivery of special components e.g. lift or other
 materials from overseas, inclement weather, etc., should always be taken
 into account.
- An unrealistic figure as the daily liquidated damages for compensation giving false expectations to the owners should not be inserted in the contract documents. Liquidated damages should be regarded as compensation rather than a penalty. The damages in monetary terms have to be justifiable in court.
- OC should take a proactive role in working out the program with the prospective contractor before the contract is awarded.
- Factors pointed out by the tenderers which have been overlooked by the Project Consultant and OC should be considered seriously. Changing of the contract completion period after opening of tender is not desirable and unfair. Should situation require, re-tendering may be necessary to arrive at a reasonable time for completion of the contract at a fair price.



4.3.7 Post Contract Management

(a) Project Planning

The contractor, and subcontractors where applicable, should submit program of the required works to demonstrate how the Contract targets and stages in between can be met, if such has not been agreed before the award of contact.

(b) Regular Reviews on the Progress of Works and Quality Check

(i) Supervision personnel

Contractors have the duty to supervise their workers continuously for safety and quality work. The duty of periodic supervision by the Project Consultant is usually included in the service but it is advisable to have clear and detailed agreement on the scope and frequency of the supervision. The Project Steering Committee usually assign one or two members experienced in the field to assist in the quality check.

For small to medium size projects, the Project Consultant usually takes up all the duty of supervision such as the quality of workmanship, the correct materials used on site. For major jobs, the Project Consultant usually recommend to the OC to employ a full time clerk of works to carry out the day-to-day quality check.

For large or complex projects, OC may consider employing an experienced professional as the Project Manager to manage the parties in the building team.

(ii) Regular reviews and progress meetings

Members of the Project Steering Committee supervising the project should conduct regular reviews with the Project Consultant and the Contractor on progress and quality of work in accordance with the contract terms. Progress meetings with details on date of evaluation, work progress, irregularities detected and time for remedial action agreed by the contractor should be well minuted for future monitoring. Owners should be informed of any project items lagging behind schedule, with explanation and improvement measures taken.

(c) Payment

Interim payments should be made in accordance with the provisions of contract upon the issuance of interim certificate of completion by the Project Consultant. When works or part of the works carried out is found to be not in accordance with the contract specifications, the Project Consultant would advise OC accordingly and payment for the non-complying or defective parts should be withheld.



In complicated projects, a quantity surveyor may be employed to assess the quantity of works done for interim payments while the Project Consultant would certify on the overall acceptance including workmanship of the works carried out.

(d) Quality Inspection for Acceptance

(i) Inspection of the completed works

When the project is approaching completion, the Project Steering Committee, the Project Consultant and the Contractor should jointly conduct a quality inspection of the completed works and if found necessary, identify action for any required rectification works. Further inspection may be necessary to ensure that all outstanding works stipulated in the contract have been carried out.

(ii) Involvement of the Government Departments

If the works or part of the works is carried out for complying with an order issued by a Government Department such as the Buildings Department (BD), the Project Consultant should arrange a joint site inspection with officers of the Department upon completion of the relevant works. Compliance letters from the Departments are usually milestones in the contract and therefore should be obtained in time to avoid undue delay to the program.

(e) Variations

They are changes made to the schedule of works or specifications after the award of contract. Variations should be kept to a minimum to avoid unexpected financial implications both to OC and the contractor. If unavoidable, variation items should be limited to those that the contractor has given a unit rate in the schedule of rates. Substantial variations for new items may become unfair to the unsuccessful tenderers, unless a new tender is invited for such new works.

(f) Incomplete or Sub-standard Works

Contractors should not be permitted to omit certain works at its own accord even the consequential price reduction based on the contract rates seems reasonable or attractive. This would again be unfair to the unsuccessful tenderers. Works done not according to specifications should not be accepted. Submission of alternative materials with the same specifications as stated in the contract may be acceptable subject to clearance by both the Project Consultant and OC. Price reduction should not be a reason for accepting sub-standard works.



4.3.7 Post Contract Management (continues)

(g) Practical Completion

The Certificate of Practical Completion should would not be issued by the Project Consultant until all the works have been carried out in accordance with specification and schedule of works. Certifying partial completion excluding outstanding or defective works is not recommended as the contractor would tend to leave out such works after practical completion.

However, for large projects involving many building blocks, completion certificate can be issued on a block by block basis.

(h) Defects Liability Period

Upon issuance of the Certificate of Practical Completion, the work sites will be handed-over to the owners/OC and the tenants. During the defects liability period which usually lasts for six months to one year after certified completion of the works, the contractor must rectify all defects that appear. When all rectification works are satisfactorily completed, the Final Certificate would be issued by the Project Consultant. This would trigger the release of the retention money. Subject to the settlement of the Final Accounts, the works contract can be regarded as completed.

4.3.8 Management Aspects During the Progress of Works

Repair and maintenance works can cause nuisance and interfere with the normal daily activities of the occupiers. All occupiers and their properties may be exposed to risks during the works. Therefore, the OC should focus their managing efforts to tackle the problems and set targets in the correct priority. Some suggestions are given below:

(a) Engagement of a Project Manager

It is a common practice that a Project Steering Committee with members experienced in the field would represent owners to supervise the due performance of the Project Manager and contractor. As such service of the committee members are usually on voluntary and part-time basis, the role of supervision and management can hardly be carried out effectively especially for complicated or large projects. An outside Project Manager should always be considered to work under such Committee to release the burden of members.



(b) Security

More security guards, patrols and stringent security measures are usually necessary. Suitable lighting has to be provided at nights on the erected scaffolding and covered walkways.

(c) Various Nuisances

In general, for carrying out repair, maintenance and construction works, the OC should, after consulting the concerned occupiers as necessary, specify appropriate requirement for minimizing various nuisances in the contract documents. After the award of contract prior to commencement of works, the OC should discuss with the contractor and the Project Consultant proposals on the use of powered tools and measures of minimizing noise, dust, waste water and building debris during the course of the work. This will include method statements of the required preventive and protective works, the use of noise reduction installations and the engagement of experienced personnel with suitable training to ensure that the proposed methods are properly implemented.

(i) Noise

Under the Noise Control Ordinance, the contractor may only work between 7 am and 7 pm during weekdays, not being general holidays, without a construction noise permit. The contractor shall, when considered necessary and agreeable to the owners, apply for a construction noise permit from the Environmental Protection Department in accordance with the Noise Control (General) Regulations prior to the commencement of works at restricted period. The OC or Project Consultant should consider not to allow any construction work inside the building at relatively sensitive hours, say, before 9 am or after 6 pm. Other occupants should also be notified in advance of the duration and time period of the construction work.

The contractor should adopt construction methods and tools which will cause least disturbance to the occupiers. Effective noise reduction can be achieved by means of silencers, mufflers, acoustic linings or shields, acoustic sheds or screens, etc. The use of heavy tool, say, handheld breakers or powerful electric drills, should be avoided or restricted to specific hours in a day.

The OC or Project Consultant as well as the contractor should realize that a construction noise permit would generally not be issued to construction works in a building, where the noise generated would be transmitted primarily through the structural elements of the building to adjoining noise sensitive uses, such as domestics flats or classrooms. Only in rare cases that the noise from the work would not disturb the neighbouring noise sensitive uses will a construction noise permit be issued. Such permit shall impose stringent conditions and be displayed at the work site.

4.3.8(c) Various Nuisances (continues)

(ii) Dust

The methods of controlling dust include providing adequate screen such as plastic screens at the hacking locations and spraying water to reduce the fine particles etc.

(iii) Waste water

To minimize pollution, the contractor should provide filters and silt depositors at the waste water discharge point, and avoid discharging waste water into a storm water system.

(iv) Building debris

Clearing of building debris includes designating a place for collection, providing suitable and adequate screening, and disposing the debris from the site regularly and promptly.

4.3.9 Site Safety Supervision Plans (SSSP)

(a) Site Safety Supervision Plans

Site Safety Supervision Plans (SSSP) are required for some building works under the Building Ordinance. Before the commencement of such works, the AP, RSE and the Registered Contractor (RC) should submit a Site Safety Supervision Plan (SSSP) to the Buildings Department (BD) for acceptance. The staff of the BD would carry out inspections to audit check the works in progress on site, all the relevant details of the supervision and the provisions on site safety aspects.

SSSP is usually not necessary for simple maintenance and repair works or most of the works for complying with statutory orders. However, slope repair and ground investigation usually requires such. Readers should consult AP and RSE the need to submit such plans in each case.



(b) Technically Competent Persons

When SSSP is required, Technically Competent Persons (TCP) have to be employed to carry out the safety supervisions. These TCP are required from the AP, RSE and Registered Contractor. Depending on the nature and size of works, the levels of required supervision are different. Advice from the Stage 1 building professional should be sought in order that the tender for Project Consultant and Contractor in Stage 2 can accommodate such requirements.

4.3.10 Prevention of Bribery

(a) Offence

People involved in building maintenance and management work should be aware that it is an offence under the Prevention of Bribery Ordinance for an agent (e.g. employee of a property management company or Management Committee member of an Owners' Corporation) without the permission of his principal (i.e. the company or Owners' Corporation) to solicit or accept any advantage (e.g. gift, loan, discount, rebate, etc.) for any act in relation to his principal's affairs or business (e.g. selection of contractors or supervision of work). The one who offers such advantage will also commit an offence.

(b) Common Problems

Common corruption and related malpractices in building maintenance and management work include:

(i) Selection of contractors

- Accepting illegal commission or advantage as a reward for showing favour or leaking tender price of other bidders or other crucial information to a certain tenderer;
- Splitting works contracts to circumvent normal tender requirements for private gains; or
- Procuring goods or services from companies owned by the staff or member responsible for the procurement or his close relatives; or setting up bogus companies to pocket price differences.

(ii) Supervision of works and services

 Practising nepotism or accepting advantages to connive at the contractors' substandard work and services.

4.3 Carrying out Repair & Maintenance Works

4.3.10 Prevention of Bribery (continues)

(c) Preventive Measures

To prevent the above problems, the following measures are proposed:

(i) Establishing policy and implementing guidelines on staff conduct

- Building management organizations including property management companies or Owners' Corporations should set standards for their employees or members and enforce rules on acceptance of advantages and conflict of interest; and
- Such policy and guidelines should be promulgated to all parties concerned including flat owners, members of the Management Committees, contractors and employees of property management companies, etc. so as to minimize corruption opportunities, avoid misunderstanding and inadvertent contraventions of the law.

(ii) Improving system and strengthening control

- Establishing criteria and procedures for inviting tenders and keeping tender documents for record and checking;
- Locking up tenders and related documents which are to be opened and assessed by several members of the Management Committee;
- Assessing tenders according to pre-determined criteria and compare them with market price;
- Avoiding and monitoring repeated acquisition of the same services or conducting of work projects of the same nature within a short span of time;
- Requesting those responsible for selection and supervision of contractors to declare any conflict of interest and conducting random check for verification;
- Setting up clear standards and requirements relating to acceptance of work or services; and
- Assigning different persons to conduct tender exercise and supervision of work and services so as to avoid collusion.