



Building Surveyors Conference 2003 Servicing our Buildings to Serve

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Building Surveyors Conference 2003



Organized by
Building Surveying Division
Hong Kong Institute of Surveyors

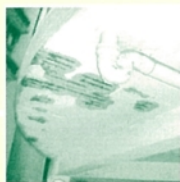
Date : 25 October 2003 (Saturday)
Venue : Conrad Hotel, Pacific Place,
88 Queensway, Hong Kong

Building Surveyors Conference 2003

Servicing our Buildings to Serve

It is high time to give a bit more attention and care to the buildings in which we live our lives and work for our living. Our earlier months marked by SARS were filled with fears, worries, frustrations, sadness... Fortunate enough, the people of Hong Kong have overcome all these with patience, courage, compassion and care. By now, the SARS attack has hopefully ended but our awareness and precautionary measures should not come to a halt, especially when the SARS report of WHO suggested that certain deficiencies in building design and maintenance may have fuelled the widespread of the disease.

Before we require our buildings to serve their intended purposes, should we ask if they are fit enough to serve. Manufacturers always recommend regular servicing to upkeep the automobiles at a serviceable standard and beyond, legislation call for periodic vehicle examination to prove roadworthiness. The rationale behind servicing equally applies to buildings - not only does it maintain their serviceable and safety standards but also their value.



The SARS incident has certainly revealed that the lack of building maintenance could lead to health issues that might end up with a crisis. Undoubtedly, the importance of building maintenance is not a new concept that we, as professional building surveyors have all understood. However, the general public at large may not be so aware of this subject or find it difficult to comprehend its value, both tangible and intangible. It is therefore important for us to reinforce this message.

It is the right time of the Conference to have speakers of diversified experience to revisit our core competencies and explore knowledge of new dimensions in building maintenance. In turn, we could make ourselves more conversant with the topic and provide a better service to the public. Let us give some thoughts and inspire for a better maintained built environment.



Conference Programme

TIME	TOPIC	SPEAKER
8:30		
9:00	Welcome Speech	Mr. Raymond Y. M. CHAN Chairman of Building Surveying Division, Hong Kong Institute of Surveyors
9:05	Opening Speech	Hon. P. C. LAU Member of Legislative Council
9:15	Keynote Speech	Mr. Michael M. Y. SUEN Secretary for Housing, Planning & Lands, HKSAR Government
9:30	Servicing our Buildings to Serve: Voluntary Initiatives vs Mandatory Incentives	Prof. Barnabas H. K. CHUNG Visiting Professor, Department of Building and Real Estate, The Hong Kong Polytechnic University
10:00	Insurance Issues with the Maintenance Works	Mr. Andrew SMITH Director and Head of Construction & Infrastructure, Aon HK Limited
Q & A		
BREAK		
11:05	Combating SARS in Public Housing - Lessons to Learn	Mr. Peter WONG Assistant Director (Estate Management), Housing Department, HKSAR Government
11:35	Servicing of Commercial Buildings to Serve: Kai Shing's Approach	Mr. Jimmy C. W. WONG Managing Director, Kai Shing Management Services Limited
Q & A		
LUNCH		
14:00	A Building Health & Hygiene Index (BHHI) for Residential Buildings	Dr. Daniel C. W. HO Associate Professor, Department of Real Estate and Construction, The University of Hong Kong
14:30	Cutting Edge Technologies on Seepage Investigation	Mr. Samson WONG Managing Director, Samson Wong & Associates Property Consultancy Ltd.
Q & A		
BREAK		
15:35	Non-destructive Diagnostic Approach to the Inspection of Building Fabric	Dr. Steven W. F. TSANG Assistant Professor, Department of Building and Real Estate, The Hong Kong Polytechnic University
16:05	Case Study: Refurbishment Project at City One, Shatin	Mr. Kenneth J. K. CHAN Managing Director, DTZ Project Services Limited
Q & A		
CLOSING		

BS Conference 2003

Servicing our Buildings to Serve



Mr. Raymond Y. M. CHAN
Chairman
Building Surveying Division,
Hong Kong Institute of Surveyors

A building has always been regarded as a 'fixed' asset. This give us the impression that it will stand on its own and function properly without much attention.

However, things changes. In recent time, we experience the SARS incidence, major collapse of unauthorized structures, etc. We now know that buildings are no longer 'fixed'. That is to say, they cannot function properly without attention. Instead, building nowadays require a lot of regular input to make them work, to make them function properly, to protect the owners from their legal obligation. The input includes regular maintenance, timely repair, appropriate improvement, proper management, maintaining adequate insurance cover, etc.

Buildings become volatile. We better accept that buildings are volatile. Without proper & timely input, buildings do not perform. They do not perform in the way as expected. That can be costly. That can be disastrous.

Let us explore with our speakers on today on how we can deal with this volatile, rapidly changing creature.

AP(HK), FHKIS, FRICS, MCI Arb, MASl,
Chartered Building Surveyor
Authorized Person
Governor, World Organisation of Building Officials

Servicing our Buildings to Serve: Voluntary Initiatives vs Mandatory Incentives



Prof. Barnabas H.K. CHUNG

Building surveyors do not charge about to service buildings, although we claim ourselves to be doctors of buildings. Instead, we provide a professional service for the co-ordination and execution of proper servicing of buildings. No doubt, buildings are our patients who demand our full attention, but they are not our clients. Our clients are the owners of the buildings who ultimately benefit when their buildings are properly serviced.

Buildings in need of servicing do not cry out themselves. Even though in many an instances their symptoms of sickness, or malfunctioning, are so pronounced, they still do not attract the proper attention. They have to wait patiently for their owners to sound the alarm and to get help. In the unfortunate incidents, they cannot wait any longer and just fall apart, maybe also causing casualties to occupiers or neighbours, or even the innocent passersby, and necessitate emergency treatment.

It is therefore of concern to practically all parties, whether directly or indirectly involved with buildings, that the buildings are properly serviced to serve their users and the community. Do we rely solely on the owners' voluntary initiatives? Is there anything that can trigger such initiatives? Is there anything that can promote the awareness of proper servicing of buildings? Is it appropriate to impose mandatory requirements for servicing or maintenance of buildings? Can and should the Government do something to coerce the owners' attention to proper servicing of their buildings? Can we building surveyors be more helpful?

MSocSc, FRICS, FHKIS, FBE, FFB, F.PFM, MCMI
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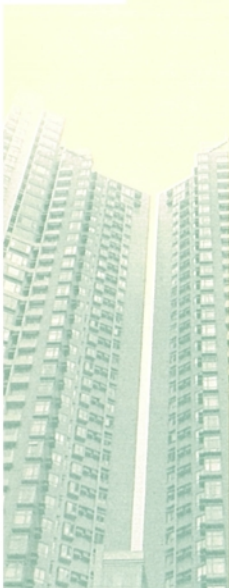
Combating SARS in Public Housing – Lessons to learn



Mr. Peter WONG

In the fight against SARS, the Hong Kong community has experienced a lot of difficulties and challenges. Doctors and other medical professionals, who undoubtedly deserve the greatest respect of all, have successfully stopped the spread of the virus and save many lives. Building Surveyors, recognized as building doctors, did play a key role to ensure that our buildings were properly serviced, managed and maintained to serve the occupants in a safe and healthy manner.

In the presentation, Mr. Wong will highlight the various challenges Building Surveyors in Housing Department encountered. He will also revisit some of the technical and management issues that the Department had to address during the SARS period, and share with you the experience gained during the most worrying and difficult times.



Servicing the Commercial Buildings to Serve: Kai Shing's Approach



Mr. Jimmy C.W. WONG

Besides its large portfolio of residential properties, Kai Shing Management Services Ltd also manages many commercial buildings. The largest of them, the New Town Plaza in Shatin has a yearly walk-in count of 70 to 80 million. Others larger commercial buildings and malls the company manages are Metroplaza in Kwai Chung, New Century Plaza in Mongkok, Tai Po Mega Mall in Tai Po, and Millennium City in Kwun Tong. As property manager of these complexes, it goes without saying that Kai Shing has to run very efficient teams to support the various services demanded by tenants, shoppers, visitors as well as developers. How Kai Shing successfully does this, how it deploys its staff to provide technical, commercial, customer and community services to its direct and indirect customers will be the subject of Mr Jimmy Wong's presentation.



BSc (Est. Mgt) Cert Ed, MSISV, MHKIS, MAPFM, FHIREA, RPS, RPHM
Managing Director,
Kai Shing Management Services Ltd

A Building Health & Hygiene Index (BHHI) for Residential Buildings

What is the BHHI?

The BHHI is a research project initiated by the Faculty of Architecture, The University of Hong Kong, during the SARS period in 2003. The BHHI was developed as a benchmarking tool to grade buildings in respect of health & hygiene. A building can be assessed with reference to its basic design configurations, conditions and management of the common areas at the time of assessment.

An assessment hierarchy consisting of 2 categories, 5 sub-categories, 24 factors, and 52 indicators has been proposed for testing in a pilot scheme. Weights for individual factors have been established through a survey of experts from the major professional and academic institutions. The BHHI of a building is presented in the form of a grade, A, B, C, & U (Unclassified), indicating the level of achievement of that building in ensuring health and hygiene for its occupants.

Characteristics of the BHHI

The BHHI provides a low cost, objective, quick, and yet a balanced assessment of the effects of a building's attributes on the health & hygiene of its occupants. The aim is to cover the highest number of buildings with limited resources and within the shortest possible time.

The BHHI can be used as a criterion for the government to implement and enforce a mandatory inspection and maintenance scheme for buildings in Hong Kong. If accepted by the public, the BHHI will provide an incentive for developers to supply healthy buildings, and owners to invest to improve the health and hygienic environment and conditions of their properties. The index will also provide information on buildings or localities that need urgent attention for urban renewal and rehabilitation.

Results of the Pilot Scheme

Results of the BHHI pilot scheme for a random sample of 57 blocks of private residential buildings assessed using the BHHI methodology in June to September 2003 is presented. The ages of the buildings ranged from 1 to 47 years, with sizes (UFA) of flats ranging from 19 to 198m². The number of buildings in each grade after the assessment are Grade A (5), Grade B (25), Grade C (21), & Grade U (6). Major findings and recommendations will be discussed.

The Future

We plan to incorporate the Building Safety & Condition Index (BSCI) into the overall Building Quality Index (BQI) during the next stage of the project. There is also an initial plan to establish a non-profit-making centre within HKU to act as an impartial agency to carry out the assessment and administration of the BHHI scheme.



Dr. Daniel C.W. HO

BSc, MBA, PhD, FHKIS, FRICS, F.PFM, RPS(BS), AP
Associate Professor,
Department of Real Estate & Construction,
The University of Hong Kong

'Cutting Edge' Technologies on Seepage Investigation

The tools and technologies that are available to us today have brought us to another arena beyond our imagination, in particular that modern non-destructive testing (NDT) methods for detecting water seepages have been fully developed and used extensively.

The study by the author reveals that like other modern countries, Hong Kong does not have a standard approach or unified guideline for adoption of testing method and equipment for identification of water seepage in buildings. It was also noted a general lack of technological advances in the building profession. The investigations to a large extent were based on experience rather than technology. In addition, supportive trade practice and regulations of competency on testing are not fully developed.

Conventional water seepage investigation, mainly based on visual inspections with the aid of simple equipments have been criticized to be unscientific and sometimes inaccurate. In dealing with water seepage complaints, it is critical that the government departments such as BD & FEHD can master the contemporary detection methodology to ascertain precisely the cause and source of the seepage before the problem can actually been solved effectively.

Careful study of each leakage case is required to determine the adoption of the correct testing methodology.

Amongst the available testing methodologies, the following are recommended to be adopted by the departments for effective water seepage investigations:

- * Fluorescent Dye Test
- * Rapid Infra-red Thermographic Test
- * SWA Leak Tracing Test

However, the author wishes to point out that the technologies used for seepage investigation cannot be regarded in any sense as 'cutting edge', the principal part of them is the change in tools and approaches. Moreover, there is no universal water seepage testing method applicable to all situations. Only through a thorough understanding of the basic principles of each technique can a correct test be specified. By careful consideration of the inspection problem and careful application of the correct testing methodology, the problem will be solved eventually.



Mr. Samson Wong



MSc (International Real Estate)
FRICS, FHKIS, ACI Arb, RPS(BS), F.PFM, AP
Managing Director,
Samson Wong & Associates Property Consultancy Ltd.

Non-destructive Diagnostic Approach to the Inspection of Building Fabric

This talk will focus on two technologies: Infrared thermography (IRT) and impact vibration testing (IVT), as examples to show how these technologies (together with a host of others so called Non-destructive testing (NDT) technologies though not covered in this talk) can help to perform this inspection task more efficiently and effectively. More importantly, most of these technologies can be applied cheaply (relatively), regularly and cause no or minimal disturbances to occupants in buildings.

Infrared Thermography (IRT)

IRT works by capturing the IR radiations (emitted and discounted those reflected) from surface which are indicative of the surface temperatures distribution of the part scanned. It is based on the premise that hidden features, anomaly or defects will be observable and detectable by measuring surface temperature distribution. This method is very attractive because it is an imagery NDT technique enabling a very fast scanning of even very large surfaces (usually facades in buildings) without the usual needs of provision of access by expensive scaffolding or highly skilled abseiling. However, IRT can only be successfully applied when good thermal contrast can be captured instantaneously by an IR camera. This good thermal contrast can be brought about by suitable artificial (or more preferably natural solar) heating/cooling.

Normally, IRT is more commonly used for detecting:

- * delamination/detachment/spalling of tile/rendering/concrete
- * moistures

in building fabrics such as: walls, floors, roofs etc. This talk will review the theoretical basis as well as practical examples of such applications.

Impact Vibration Testing (IVT)

Impact vibration works by striking a building component (a balcony as a case in point in this talk) with an instrumented impact hammer. The minute vibration subsequent to this impact is then measured with the help of a tiny sensor called accelerometers. The structural vibration characteristics of the building component can be obtained through a sequence of frequency and modal analysis of the raw experimented data collected. This talk will present examples of successful application of IVT on some balconies in two HK residential housing estates to determine structural integrities of these balconies. The talk intends to appeal and harbour interests from the building surveying profession to use this technology for massive structural integrity screening of new and old balcony and canopy structures in HKSAR.



Dr. Steven W. F. TSANG

BSc (Hons), PhD, FHKIConstE, FASI, FCIIOB
Assistant Professor, Department of Building and Real Estate,
The Hong Kong Polytechnic University

Refurbishment Project at City One, Shatin



Mr. Kenneth J. K. CHAN

Recently, more people were becoming aware of the importance of routine maintenance to their properties. It could not only extend the life span of the development, it is also a key factor upkeeping, or even enhancing the value of the property. With this objective in mind, external wall renovation would be one of the good solutions.

This presentation is a case study of a residential estate development of about the age of 20 years at Shatin. The project mainly involves the refurbishment work of the external facade in both functional and aesthetical aspects. The whole project management and site supervision process will be demonstrated together with others measures which facilitate the design/monitoring process.

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