

Annual General Membership Meeting (AGMM)



Since the built environment is the largest user of energy and emitter of greenhouse gases, incorporating adaptive reuse potential in the design of future buildings can help achieve greater sustainability. However, can sustainability and adaptability be integrated in a single decision tool for designing future buildings? Indeed, it is not

possible to know what lies ahead for the built environment in the future but using current research on sustainability and the impact on natural resources and climate, it is possible to forecast the connection between built environment activity and sustainability.

When designing new buildings, it is important to be concerned with maximizing



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the adaptive reuse potential of buildings later in their lives to help mitigate the effects of a changing climate. Adapting existing and new buildings is a viable alternative to demolition and replacement in order to mitigate climate change and global warming. Designing for new buildings with embedded adaptive reuse potential is a useful criterion for sustainability since it entails less energy and waste, protects the buildings' inherent values while giving them a new lease of life in the near future.







The new set of Board of Directors for FY 2018-2019. From left: President- Ar. Joan De Leon Tabinas, VP-Programs & Devt- Ar. Larshir Mangaliman, VP-Operations- Ar. Mark Lester Valignota, Secretary- Ar. Sheila Maria Conejos, Asst.Secretary- Ar. Charmagne Uy, Asst.Treasurer- Ar. Rachel Del Rosario, Committee Head- Ar. Rodaleen Enriquez, Auditor-Ar. ROmel Agno, Treasurer- Ar. Jerry Chan, Committee Head- Ar. Edmon Zabala.



Design for Maintainability of High-rise Vertical Green Facades

Since the introduction of vertical greenery systems (VGSs) in Singapore, building designers have experimented with different VGS designs and types to apply to high-rise building facades. Although innovative designs have brought variety to the utilitarian high-rise facades clad in glass, steel and concrete, little consideration has been given to the issues of maintainability during the design/planning stage. This lack of foresight and planning has hindered the efforts of maintenance personnel and compromised the performance of such green facades.

To address these concerns, an instrumental case study approach

was undertaken using a series of site investigations and interviews with experts and stakeholders.

The aim of this research was to strengthen the knowledge base on high-rise vertical greenery facades in the tropics, leading to the formulation of case studybased 'design for maintainability' (DfM) guidelines. These guidelines will assist clients, designers and contractors by providing a supplemental reference during the design, installation and maintenance of high-rise VGSs located in tropical regions.





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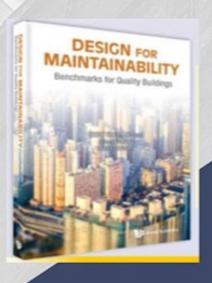
Launching of the Book "Design for Maintainability: Benchmarks for Quality Buildings"

Can we really reduce the cost of maintaining a building? Given the annual total cost of keeping a building safe and usable, especially aging buildings, the amount spent on operation costs can be a princely sum.

Investment on building maintenance represents almost half of the total turnover of the construction industry and such a reduction of resources has a direct effect on a nation's economy. Recent studies have shown that the main factors that lead to building operations and maintenance problems are due to faulty design, faulty construction, financial factors and maintenance related defects.

The lack of maintainability considerations during the design and construction stages lead to building defects which accounts to billions of dollars expenditures throughout the building's lifecycle.

More so, the potential unsafe conditions of buildings (specifically on high rise building facades) can be more detrimental to the lives and health of construction workers and may jeopardise public safety and surrounding properties if remained unaddressed. Thus, the design for maintainability is established from the standpoint of the design itself to ensure the benchmark and quality of design, construction and maintenance practices for high maintainability of buildings.



This book retails for US\$38 / £33 / SGD56 (paperback) at major bookstores. A hardback edition is also available at US\$58 / £51 / SGD86. To know more about the book visit http://www.worldscientific.com/worldscibooks/10.1142/107224/



Launching of the Book "Design for Maintainability: Benchmarks for Quality Buildings" Book

Responding to calls from developers and building professionals, Michael Yit Lin Chew, Ashan Asmone and Sheila Conejos (National University of Singapore) authored Design for Maintainability: Benchmarks for Quality Buildings. The book focuses on spearheading the integration of designers, constructors and facility managers (FM) on the outset of the planning/design stage easy to read tables summarising knowledge learned from past mistakes and maintainability benchmarks.

The book is organised by the six major building components: (1) basements, (2) wet areas, (3) façades, (4) roofs, (5) common areas and (6) M&E systems. Each chapter addresses the common defects and the corresponding design, construction, or facility management issues, with

standards, guidelines and recommendations for the structural, architectural and services of the component, to be taken into account at the outset of the planning/design stage. Building maintenance shares a significant portion of any building's operational cost and it is gaining increased awareness that improved maintenance performance can be used to add value to the business process. Thus, "to complement Singapore's goal to achieve sustainability through greening its built environment, considerations for the maintainability of new buildings at the design stage is critical" says lead author, Prof Chew.



'Design for the Maintainability of High-Rise Vertical Greenery Systems (VGS) Facades in the Tropics' Lecture and Workshop



Vertical Greenery Systems (VGS) have been a widely accepted design strategy that contributes to creating sustainable built environments. However, green building technologies (e.g. VGS) have grown in complexity which poses maintainability challenges. Little consideration has been given to the issues of VGS maintainability during the design stage which compromised their performance and sustainability. Somehow, considering maintainability right at the outset is crucial in delivering efficient and sustainable green buildings. This module will introduce the concept of Green Maintainability (GM) and the GM factors used to assess the performance and sustainability of high-rise VGS in the tropics.



'Design for the Maintainability of High-Rise Vertical Greenery Systems (VGS) Facades in the Tropics' Lecture and Workshop

A defect library will be presented to further illustrate their performance as represented by selected award winning case studies. The module will also demonstrate the research undertaking concerning building pathology/ diagnostics, its tools, approaches and its significance to ensuring sustainable built environments. One of the aims of this module is to update the knowledge base on high-rise vertical greenery facades in the tropics, and introduce evidencebased 'design for maintainability' (DfM) guidelines which could be used as a supplemental reference during the design, installation and maintenance of high-rise VGSs located in tropical regions. Learning and Teaching Strategy The module is delivered via face-toface. This seminar consists of lectures, discussions, presentations and Q&A. Participants are strongly encouraged to attend on time and







Be present for the whole duration of the seminar/talk, as each programme is designed to cover the required core module concepts of the subject matter. The programme is designed to be interactive and involve active participation from the participants.