## UNIVERSITI TEKNOLOGI MARA

# MALAYSIAN LEGAL PROVISIONS AND DESIGN RISKS IN CONSTRUCTION WORKS

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Thesis submitted in fulfilment of the requirements for the degree of **Doctor of Philosophy** 

Faculty of Architecture, Planning & Surveying

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### AUTHOR'S DECLARATION

I declare that the work in this thesis/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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#### ABSTRACT

Construction project is shrouded with various aspects of risks, which includes risks related to design professionals and design works. In order to complete a construction project successfully, the parties involved must be able to manage the risks. Although the need and importance of risk management cannot be denied, the standard of risk management among the parties involved in a construction project in Malaysia differs from one company to another. This is due to various factors such as the company resources for risk management, types and size of the project. As such there is a need to standardize the basic practice of risk management among the parties involved to secure the safety and proper performance of the project. This can be achieved through legal measures, where certain requirement on risk management can be imposed to ensure the least required practice of risk management is exercised. This research is meant to look at the risks associated with design professionals and design works under the traditional procurement route in Malaysia and the role of Malaysian law in corresponding to the practice of standard risk management by the parties involved. In achieving the objective, research instrument in form of questionnaire survey, in-depth interviews and expert interview were adopted. The questionnaire survey is meant to get the general perceptions from architects and engineers on the problem statement. Based on the replies, further in-depth data collection was conducted, in the form of semi-structured interview. Finally, the data were evaluated by experts, which concluded the triangulation approach. Triangulation approach adopted in this research will produce a robust and reliable data. From the analysis of the data, it was found that there are aspects of design works which lead to the occurrence of design related risks. Such risks emanated from the designers professional duty as well as from the structure of the traditional procurement system. In addition to this, with regards to the legal provisions on design risk management, several aspects of the law of contract, tort and statutory provisions have to be addressed to correspond to design risk management needs. While the structure available is ready for the law to be an efficient force in ensuring proper risk management practice among the designers, the lacking of effort to affect it undermined the crucial role of the law itself. The research also found out that there are certain aspects of the law that are not being fully understood by the respondents. This factor also leads to the occurrence of design related risks. Accordingly, based on the above, an outline on certain areas in connection to the laws and design risks that can be improved was prepared. The identification and recommendation of areas to be improved is hoped will provide those involved with the construction industry guidelines to develop framework for an efficient design risk management practice to be established.

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