ABSTRACT

The objective of this dissertation is to study how the various stages in project development impact the environment and how practising architects response to environmental issues. Use of visual impact studies by means of computer simulation, photographic montage and the effect of landscape design to the project were also covered.

Project implementation involves a wide range of trade and materials. Attempts were made to highlight the effect of construction/building materials to the indoor environment, how construction methods and equipment could minimise construction waste, noise pollution and air pollution.

A survey was also conducted amongst sixty architects. The topics covered included general awareness of environmental issues, site planning, visual impact, noise pollution, indoor air quality, waste minimisation, quality assurance and commissioning.

From the fifty-six returns, it was indicative that generally the architects had a high level of awareness of environmental issues and they were supportive of controlling the impact of environmental damage caused by project development. However, topics that were related to Mechanical & Electrical (M & E) design received less positive response and some felt that those were the responsibilities of the M & E Engineers. Similarly, site management and control issues were concived as that of the contractors’.

One of the major problems is the lack of information on the suppliers’ catalogue regarding environmentally friendly products and lack of a reference manual. Though the architects were aware of the need to use environmentally friendly products, this lack of information would be a hindrance to the minimisation of use of non-environmentally friendly products. The study also recommended that probably a joint effort by the Construction Industry Development Board (CIDB), Singapore Institute Of Standards and Industrial Research (SISIR), National University of Singapore (NUS) and Singapore Institute of Architects (SIA) could resolve this issue.
Also, the problem of indoor air quality (IAQ) problem could be more effectively resolved if checks were incorporated as a mandatory requirement at the Development Control submission stage.

The Urban Redevelopment Authority (URA) could also control the amount of noise generated and excavation waste produced if they could revise the permissible plot ratio for the entire island based on the soil condition of the area. The role of SIA in updating its members on environmental issues would be also an effective means.