To enhance communication among various players in the construction industry and thereby improve productivity, the Singapore IT Standard for Information Exchange project has looked into a project to produce a set of common IT tools for information exchange. The immediate focus of this project is on three modules, namely, the Standard Classification System, Computer Aided Design (CAD) Layering Standard and CAD Symbol Standard. The long-term goal of CITC, Singapore is to integrate the different types of software used by industry players, and move from a two-dimensional to a three-dimensional platform. Such efforts include layering standards and the development of a Computer-Aided-Measurement System (CAMS).

The Layering standard provides standardised ways of structuring building information in CAD drawings. This helps to facilitate communication among different disciplines in the construction industry and supports the automatic processing of graphical information.

Singapore Standard, the Code of Practice (CP83), was developed to establish the general principles of layer structure within Computer-Aided Design (CAD) files to facilitate construction, communication and management.

Although the concept of layering may not be new in countries such as US, it is still relatively new in Singapore. So this study sets out to explore the impacts of National CAD Layering Standards in terms of effective communication and sharing of information among various players of construction industry. This study aims to identify the problems and limitations of Code of Practice (CP83) and also to investigate how the industry needs to re-engineer in terms of skill training, organizational re-structuring and purchasing of new equipment.
Preliminary studies and preparation were done mainly through literature review, as there were not many books and dissertations regarding National CAD Layering Standard, especially local ones. Other forms of review were papers from construction law journals and dispute resolution journals.

From the interview and questionnaire survey among professionals it has found that the industry is still unfamiliar with this new standard and even some key players of the industry have never heard about it. The new CAD layering system is undoubtedly effective in terms of communication among various professionals, but the industry still requires a lot of adoption, persuasion and training in order to realise that the standard is vital for achieving higher productivity. The industry also needs a lot of efforts and time to face the difficulty in terms of conversion of existing drawings to the new standard.

From the case study it was found that some components' names were not found in CP83 and it also aroused some confusions to the user to choose the appropriate naming for National CAD Layering Standard compliance.

A few suggestions have also mentioned for the improvement of National CAD Layering Standard (CP83) and recommendations are drawn at the end for future research.

The study also provides an informal means for the industry to voice its opinions on such a movement and provides a preliminary insight for further improvement of CP83 and level of adaptation prior to make it as a mandatory Code of Practice.