

A Case Study Approach to the Rate the Eco Sensitivity of Green Infrastructure Solutions

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Abstract : In the area of civil infrastructure, there is an urgent need to apply technologies that deliver infrastructure sustainably in a way that is cost-effective. Civil engineering projects can have a significant impact on ecological and social systems if not correctly planned, designed and implemented. It can impact climate change by addressing the issue of flooding and sustainability. Poor design choices now can result in future generations to live in a climate with depleted resources and without green spaces. The objectives of the research study were to rate the sensitivity of various greener infrastructure technologies that can be used in township infrastructure, at the various stages of the project. This paper discusses the Green Township Infrastructure Design Toolkit, that is used to rate the sustainability of infrastructure service projects. Various case studies were undertaken on a range of infrastructure projects to test the sensitivity of various design solution against sustainability criteria. The Green reporting tools ensure efficient, economical and sustainable provision of infrastructure services.

Keywords : eco-efficiency, green infrastructure, green technology, infrastructure design, sustainable development

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