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ECONOMIC SELECTION OF WATER WAY – ROAD CROSSING STRUCTURES

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ABSTRACT: Culverts and bridges as crossing structures are the major types of hydraulic structures within the irrigation system of Egypt. Each type could be used at a waterway - road intersection. No selection criteria is readily available when such a structure is needed. Several alternatives for a culvert could be used such as steel pipes, concrete pipes or concrete box sections. The prevailing type within a region is usually selected without consideration to the cost. This paper presents a selection criteria for the structure type based on the total cost of the structure, including capital cost and maintenance cost taking into consideration the structure expected life time.