

DESIGN OF IRRIGATION CANAL

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ABSTRACT

The main purpose of this project is to provide overall basic and main information of designing an Irrigation Canal.

From the introduction, Purpose of Irrigation is clearly defined, and the used of irrigation in Malaysia also briefly describe in this part. Besides, basic consideration needed before designing an irrigation canal is clearly describe on Irrigation Requirement.

While in the methods of design, types of canal is divided into two parts, and methods are as shown below:

1. Lined @ nonerodible canal
 - Manning's equation method
 - Cost direct algebraic method
2. Unlined @ erodible canal
 - Method of permissible velocity
 - Method of attractive force

Besides, this project can guide you throughout the procedure of designing an irrigation canal.

In calculation parts, Trapezoidal and rectangular lined canal is being design for the use of paddy irrigation. Meanwhile trapezoid unlined canal is being design for the use of oil palm and fruits estate irrigation.

Furthermore, the HYDROCALC Hydraulic program for windows is introduced at Appendix, and this program can able to solve computation for canal design, such as normal depth, critical depth, maximum permissible velocity and others.

After reading this project, the reader will have a better understanding the used the irrigation canals. As a canal designer, this project can be served as references or guidelines in further information and modification.