

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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A.M.

EXPERIMENTAL MODEL FOR SEEPAGE FLOW THROUGH LEAKY HYDRAULIC STRUCTURES

by

AIMAN MOHAMAD ALMUSTAFA

A Thesis submitted to the
Faculty of Engineering at Cairo University
In Partial Fulfillment of the
Requirements for the Degree of
MASTER of Science
in
CIVIL ENGINEERING

Under the Supervision of

Prof. Dr. Mohamad M. Salama

Dr. Aly M. Soliman

m.m. salama

aly m. soliman

Irrigation and Hydraulics Department
Faculty of Eng. Cairo University
GIZA, EGYPT

FACULTY OF ENGINEERING, CAIRO UNIVERSITY

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Approved by the Examining Committee:

..... m.m. Salama

Prof. Dr. Mohamad M. Salama, Thesis Main Advisor

..... M. Sileet

Prof. Dr. Mostafa Y. Sileet, Member

..... Abdel-Mohsen Almongy

Prof. Dr. Abdel-Mohsen Almongy, Member

FACULTY OF ENGINEERING, CAIRO UNIVERSITY

GIZA, EGYPT

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ABSTRACT

The hydraulic structures founded on permeable soils are usually exposed to seepage, therefore, they are provided with curtain walls or sheet piles in order to reduce or eliminate the detrimental effects of the seeping water. The sheet pile or the curtain wall under hydraulic structures may leak due to deterioration with time or construction problems.

The main objectives of this study are to evaluate the effect of such leaks on the total head and seepage losses. Simulation of defected sheet piles is made. An experimental model is built to investigate the problem. It is concluded that the area and position of slots have an effect on the total head and seepage losses.

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