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مشروع السدود المحيطة



المركز القومي لبحوث الإسكان والبناء
Housing Building National Research Center
Since 1954

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ملحق رقم ٩

بمختار لجان البحث
المستقلة

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مشروع المدود المحيطة

جاري تعريبه

مدير معهد بحوث البناء

المركز القومي لبحوث الإسكان والبناء
Building National Research Center

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٩ التأسيس

Cofferdams and Caissons

1 - General

1.1 Scope. These provisions apply to cofferdams and caissons used for execution of foundations below water level in rivers - harbours or in waterlogged ground which necessitates lateral support of excavation. Their function is to provide a space down to foundation level from which water is excluded and the earth removed to permit the execution of the work.

They are employed for bridge piers - dock structures - dams and foundation of buildings.

1.2 Preliminary investigations.

Selection of cofferdam type or caisson should be made after careful investigation of the ground, such as site investigations, borings, samples tested, permeability and strength of the soil considered, to determine the depth to which cofferdam sheeting should be driven to ensure stability and to cut off any excessive flow of water into the dam in order to eliminate danger of a blow.

In rivers and tidal waters, heights of tides, flood levels current velocities, wave action, should be carefully studied.

2 - Materials and stresses

2.1 Timber - The usual structural timbers used for cofferdams are pitch-pine if available or Swedish wood or any similar hard wood.