



**US Army Corps
of Engineers®**
Engineer Research and
Development Center

Chicago Lakefront

Description Much of the existing lakefront for the City of Chicago was created as a large landfill project in the 1920's and 1930's. The project was protected from waves by a stepped-stone revetment that has fallen into disrepair.

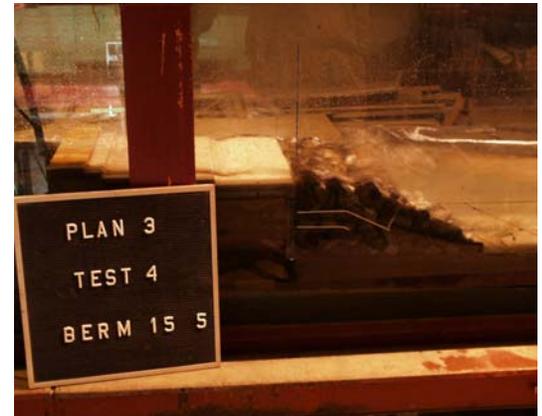
Issue The U.S. Army Engineer District, Chicago (LRC), requested that the CHL conduct a physical model study to measure overtopping rates for various cross-sectional configurations of a proposed stepped revetment for the Chicago lakefront. The new revetment is being planned as part of the Chicago Shoreline Storm Damage Reduction Project.

Supporting Technology Physical model studies at a 1:38 (model:prototype) scale were conducted in a two-dimensional wave flume equipped with a computer-controlled wave generator. Design storm parameters were determined by LRC based on wave hindcasts and measured wave conditions.

Benefits Overtopping rates measured in a physical model will aid in selection of cross-section configuration and design of drainage system.

Sponsors U.S. Army Engineer District, Chicago (LRC).

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Model testing of step revetment configuration