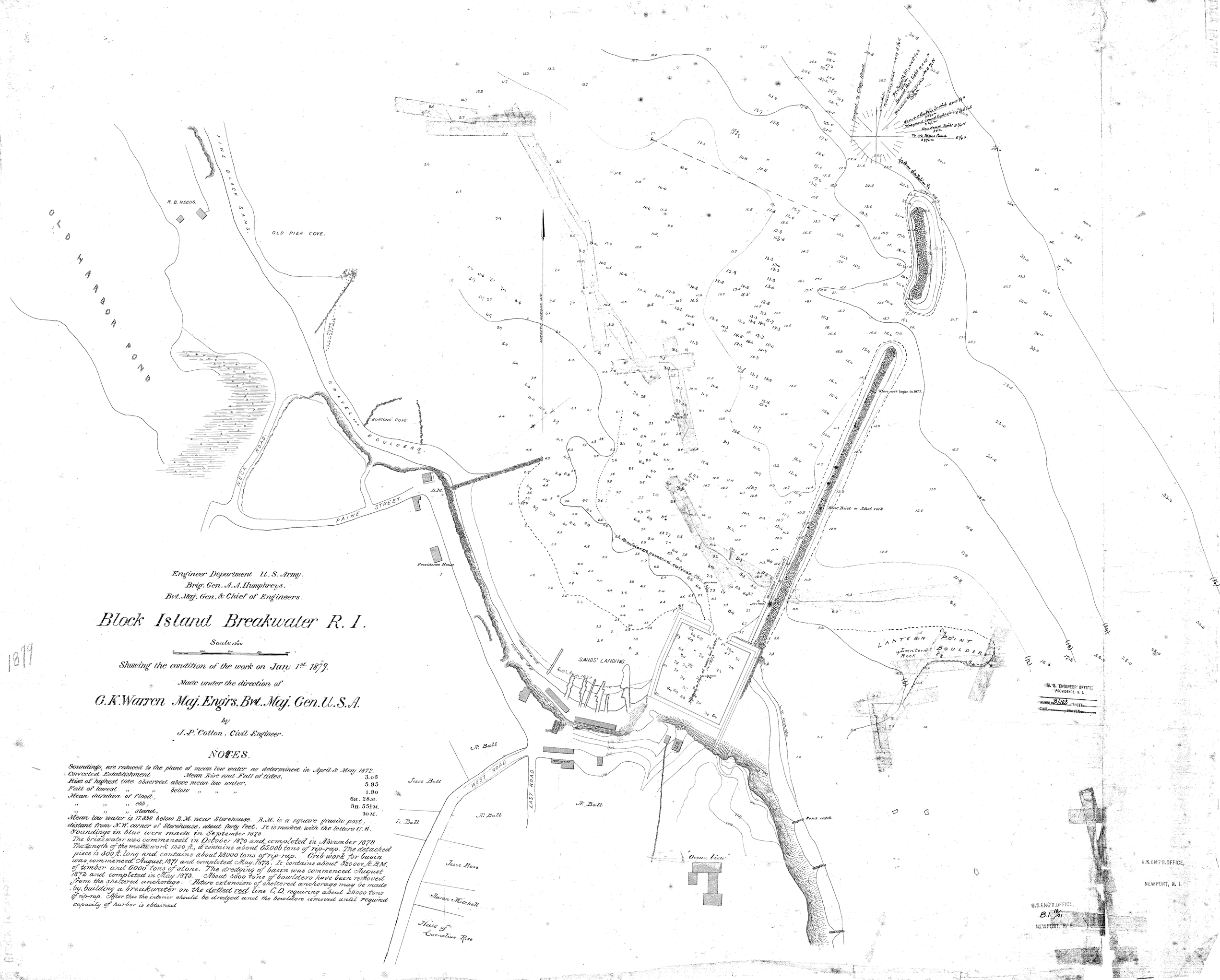

Engineer Department U. S. Army.
Brig. Gen. A. A. Humphreys.
Brt. Maj. Gen. & Chief of Engineers.

Block Island Breakwater R. I.

Scale 1/200

Showing the condition of the work on Jan. 1st. 1879.

Made under the direction of

G. K. Warren Maj. Engrs, Brt. Maj. Gen. U. S. A.

by

J. P. Cotton, Civil Engineer.

1879

NOTES.

Soundings are reduced to the plane of mean low water as determined in April & May 1872.

Corrected Establishment	Mean Rise and Fall of tides.	3.05
Rise of highest tide observed above mean low water,		5.95
Fall of lowest " " below " " "		1.90
Mean duration of Flood,		6H. 28M.
" " " ebb,		5H. 55½M.
" " " stand.		10M.

Mean low water is 17.898 below B.M. near Storehouse. B.M. is a square granite post, distant from N.W. corner of Storehouse, about forty feet. It is marked with the letters U.S.

Soundings in blue were made in September 1878

The breakwater was commenced in October 1870 and completed in November 1878 The length of the main work 1250 ft, & contains about 65000 tons of rip-rap. The detached piece is 300 ft. long and contains about 28000 tons of rip-rap. Crib work for basin was commenced August, 1871 and completed May, 1873. It contains about 320000 ft. B.M. of timber and 6000 tons of stone. The dredging of basin was commenced August 1872 and completed in May 1873. About 3000 tons of bowlders have been removed from the sheltered anchorage. Future extension of sheltered anchorage may be made by building a breakwater on the dotted red line C.D. requiring about 25000 tons of rip-rap. After this the interior should be dredged and the bowlders removed until required capacity of harbor is obtained