

THE UNITED KINGDOM SITE FOR THE 300 GeV ACCELERATOR

GEOTECHNICAL STUDIES

Commissioned by the Science Research Council

Prepared by the Institute of Geological Science and the Building Research Station.

November, 1967.

SYNOPSIS

This report deals with all the geotechnical and geological work carried out on the Mundford site since the publication of CERN 644 in May 1967.

It describes in detail the results of a large scale tank loading test, three sets of plate loading tests and more than 50 auger holes exploring the geological and geotechnical properties of six suggested beam lines.

An engineering classification of the chalk has been devised, based on lithology, degree of fracturing and state of weathering. This qualitative classification has been directly correlated with the results obtained in the loading tests.

This clarification has enabled the stiffness of the chalk to be assessed around the suggested ring and along six beam lines and experimental areas.