

PHYSICAL TESTING AND ASSESSMENT OF BRIDGES - FINAL REPORT

The physical testing of bridges project aims to investigate test methods and appropriate techniques in order to develop cost effective load testing procedures and instrumentation systems which will enhance the methods available for routine assessment of bridges. Based on previous work, this final report describes, in more detail, testing methods and instrumentation for load testing of bridges, which are considered to be suitable for measurements of displacements and strains on bridges.

Recent developments which have been made to load testing and assessment systems are described. These include the development of the deflection pole system, the use of Mobile Strain Transducers (MST) and the use of the MAFEA (masonry arch finite element assessment) package.

It is clear that appropriate instrumentation systems are vital to the cost-effective testing of bridges, and that recent development work has reduced the costs of load testing while increasing the quality of the data obtained. As these developments progress it is likely that load testing will become more common and that the use of load testing may be recognised and integrated more fully into assessment standards.