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# Australian Standard CA56—1968

## THE CONSTRUCTION OF VITRIFIED CLAY PIPELINES

UP TO AND INCLUDING 12 in DIAMETER WITH FLEXIBLE OR RIGID JOINT SYSTEMS



STANDARDS ASSOCIATION OF AUSTRALIA Incorporated by Royal Charter THE FOLLOWING SCIENTIFIC, INDUSTRIAL AND GOVERNMENTAL ORGANIZATIONS AND DEPARTMENTS were officially represented on the committee entrusted with the preparation of this standard:

Consulting Engineers

Departments of Works

Division of Building Research, CSIRO

Master Plumbers Organizations

Vitrified Clay Pipe Manufacturers

Water Supply, Drainage Boards, Authorities, Departments and Commissions

This standard, prepared by Committee WS/15, Vitrified Clay Pipes, was approved on behalf of the Council of the Standards Association of Australia on 12 April 1960.

In order to keep abreast of progress in the industries concerned, Australian standards are regularly reviewed. Suggestions for improvements, addressed to the head office of the Association, will be welcomed.

This standard was issued in draft form for public review as Doc. 1176.

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AUSTRALIAN STANDARD CODE OF RECOMMENDED PRACTICE

## THE CONSTRUCTION OF VITRIFIED CLAY PIPELINES

### UP TO AND INCLUDING 12 in DIAMETER WITH FLEXIBLE OR RIGID JOINT SYSTEMS

### AS CA56-1968

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#### PREFACE

This code of recommended practice has been prepared to complement the Australian standard specification for vitrified clay pipes, AS A164. It will be noted that recommendations in this code are limited to pipes not larger than 12 inches in diameter; the drafting committee is of the opinion that for pipelines of larger diameter special installation considerations would be warranted.

Particular attention is drawn to the fact that completely new ground has been covered in these recommendations. Examination of oversea practices and literature disclosed no substantiated recommendations to show that 4-in and 6-in diameter pipes should be treated in the same way as larger diameter pipes. In view of the considerable infiltration associated with structural failures in small diameter pipelines, the committee was fortunate in being able to be associated with experiments which had already been commenced, in anticipation of the need for this information, by the Melbourne and Metropolitan Board of Works where a lengthy and detailed experimental examination of the beam loading forces and shearing forces which act on small diameter pipelines in situ was being made.

As a result, the committee concluded that the strength of pipes acting as beams is the controlling

factor when considering 4-in and 6-in diameter pipes, ring loading strength tending to merge with beam loading strength before the diameter of the pipe reaches 9 in.

The code does not specify requirements with respect to infiltration. However, the committee considers that pipes which meet the permeability requirements in Clause 2.2 of AS A164 will allow only an insignificant amount of infiltration, and even this will decrease rapidly with time.

This code of practice should be read in conjunction with AS A164, Vitrified Clay Pipes, and AS A165, A 4-in diameter Rubber Ring Joint for Vitrified Clay Pipes. The three documents were drawn up with the intention that they be used together, and the code will be used to best advantage if this consideration is kept in mind.

In addition to the above standards, this code requires reference to AS CA33, Concrete Pipe Laying Design, and reference may also be necessary to AS A89, Methods of Testing Soils for Engineering Purposes.

The Association gratefully acknowledges the particular assistance given by the MMBW in the preparation of the drawings in this code.

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