

Contents

KEYNOTE LECTURE

Soil mechanics for pavement engineers

Professor S.F. Brown, DSc, FREng

1

GEOTECHNICAL DESIGN AND CONSTRUCTION

Use of geosynthetics in transportation projects

S. Corbet

25

Geotechnical aspects of large section jacked box tunnels

Dr D. Allenby and J.W.T. Ropkins

39

Long term settlement of piles under repetitive loading from trains

Dr N. O'Riordan, A. Ross, R. Allwright and A. Le Kouby

67

The importance of shallow geotechnics in the performance of rail trackbeds

R.J. Armitage and Dr M.J. Brough

75

Detecting voids beneath concrete pavements using surface deflection

D. Cudworth

95

MANAGEMENT AND SPECIFICATIONS

Private finance initiative infrastructure projects – implications on geotechnical design

S. Jarvis and P. Gilbert

117

Geotechnical asset management

Dr M. Raybould

131

A performance specification for pavement foundations

Dr P.R. Fleming, Professor C.D.F. Rogers, Dr N.H. Thom, and Dr M.W. Frost

161

SUSTAINABILITY

Recycling in transportation

S.J. Ellis

177

Hydraulically bound soil for road foundations

S. Biczysko

189

Bioengineering and the transportation infrastructure

J.R. Greenwood, J.E. Norris, J. Wint, and D.H. Barker

205

Legacy of railway construction: impact on geotechnical characterisation

Professor M.S. Rosenbaum and C.F. Taylor

221